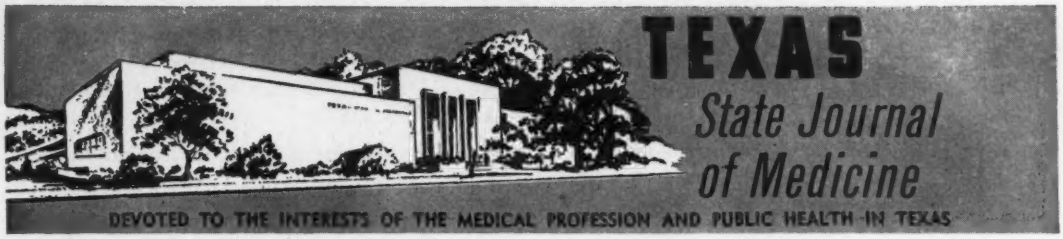

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Football—Liability or Asset: Role of the Physician

King Football will reign supreme for the next 3 months. Among the big things characteristic of Texas is the largest high school interscholastic football league. This month in excess of 900 high schools and an uncounted number of lesser teams will test their skill on the gridiron. This represents approximately 100,000 youths in an active, competitive contact sport.

In many of our high schools no provisions are made for anything other than a coaching staff. The responsibility for training, equipment purchased, and determination of conditioning and of injury becomes the responsibility of the coach along with his teaching of the fundamentals of football.

It is a known fact that most sports injuries will heal with a minimum of attention, if given time. Football does not allow such time. Each week presents its game requiring an acceleration in the treatment of these players.

A number of complex variables are associated with the game. On one side is the overanxious mother who will stop her son from playing for any excuse. In contrast is the aggressive father who insists that his son play even though he may have no desire or physical ability. There is the ever present necessity for the coach to win if he is to advance. Last, there is the boy who reluctantly, if at all, will admit of any injury or defect if he thinks it will keep him from playing.

In the middle of this variability there must be one unbiased, stable voice—that of the team physician. Fortunate is both the team and the physician if each fully understands

the responsibility upon this individual. He must have the confidence of the parents and of the coach and be ready to consult with the family physicians. He must know the players and their reaction to injury. He must know when to encourage and when to restrain. When the family physician can not be consulted, the team physician's word must be accepted as final on whether a boy may or may not play with a physical condition.

The team physician's duties should begin with a pre-season physical examination, done either by the family physician or himself. His knowledge of equipment may not be extensive, but he should insist that it be in an excellent state of repair and be adequate in amount. He may be called upon to offer suggestions on the conditioning of the players. He should be present at every game to pass upon the injuries received. Whether he treats them personally is of no consequence, but he should insist upon adequate examination and treatment when it is indicated. A boy or a coach is not qualified to state the extent of the injury which may be present.

Texas is justifiably proud of its ranches, oil, and broad fertile acreage. These, indeed, are valuable. Is not a more valuable asset the healthy bodies of these 100,000 young men filled with a competitive spirit generated by organized sports? Who, other than the family and team physicians, can protect this asset? It rests upon the physician whether football is to be a liability or an asset.

—HARRY LEDBETTER, M.D., Wichita Falls.

Carcinoma of the Lung

With the exception of epithelioma of the skin, bronchogenic carcinoma is the most frequent malignant tumor occurring in men. It is a common cause of death in women. These awesome facts are recognized generally, but not enough is being done to diminish the incidence of this tumor or to offer unfortunate persons who develop lung cancer their best prognosis.

It has been demonstrated repeatedly that the etiology of the most frequent type of bronchogenic carcinoma, squamous cell epithelioma, may be related to inhaled carcinogenic substances. Several surveys, particularly of the American Cancer Society and the British Central Council for Health Education, have indicted cigarette smoking as the most important causative factor. Noxious gases and atmosphere containing irritating or carcinogenic fragments may jeopardize industrial workers.

Until a more effective method for filtering and cooling cigarette smoke is developed, any patient with a cough should be urged not to smoke, and excessive smoking should be discouraged routinely. Also, industry must be more cognizant of the potential dangers of irritating gases and minute fragments in the air inhaled by employees and use effective filtering systems.

It is essential that carcinoma of the bronchus be detected in an early phase and that the most effective treatment be administered promptly. Unwarranted delays in diagnosis have been a serious handicap to prognosis, and the physician's diagnostic acumen should be improved. Some of the more common reasons for procrastination in detecting cancer of the lung include:

1. *Attributing signs and symptoms of carcinoma to common respiratory diseases.* The physician should not assume that early signs and symptoms of a possible bronchogenic carcinoma are due to chronic bronchitis, allergies, viral pneumonia, or other respiratory infections.

2. *Undue significance of "normal" chest roentgenograms.* Physicians occasionally erroneously advise their patients that carcinoma of the lung can be excluded because a roentgenogram of the chest appears to be "normal." Obstructive emphysema is the first abnormality visible roentgenographically, and this compli-

cation does not occur until the tumor is large enough to produce partial bronchial obstruction. If the patient has signs and symptoms suggesting cancer of the lung; this possibility must be excluded. Physical examination, bronchoscopy, and cytologic examination of bronchial aspirations and sputum usually will establish the true diagnosis. Exploratory thoracotomy may be required.

3. *Coexisting pulmonary disease.* Occasionally, the patient may have a known pulmonary disease such as tuberculosis or bronchiectasis, and a coexisting carcinoma of the bronchus may not be recognized. The astute physician must remain alert and cautiously investigate the possibility of a concurrent neoplasm.

4. *Observation period for unilateral pneumonitis too lengthy.* If unilateral pulmonary infiltration does not clear progressively with medical management, resolve completely in a reasonable time, and fail to recur, carcinoma of the bronchus must be considered seriously. If the diagnosis remains obscure after careful clinical evaluation, exploratory thoracotomy should be performed.

5. *Incorrect clinical impression of the significance of a solitary pulmonary nodule.* Patients occasionally are advised incorrectly (1) that a solitary pulmonary nodule is benign because calcium is present or (2) that the nodule is metastatic and, therefore, their condition is hopeless.

A laminated, completely calcified nodule seldom is malignant, and the presence of smaller amounts of calcium diminishes the possibility of carcinoma but does not exclude it. Even if the patient gives the history of a previous malignant tumor in another location, or if one exists simultaneously, the solitary pulmonary nodule does not necessarily indicate carcinomatosis. The lesion in the lung may represent a second primary malignant neoplasm or a solitary metastasis.

When a residual or metastatic malignant tumor is not evident elsewhere and the patient is a reasonable operative risk, the pulmonary nodule should be removed for microscopic examination. If the lesion is a second primary carcinoma, the patient may have an excellent opportunity for recovery; if it is a solitary metastatic nodule, maximum treatment has been administered to offer the patient the best prognosis.

The physician's pessimistic attitude has been another deterrent in the therapeutic attack upon lung cancer. If the malignant tumor can be removed adequately while the lesion apparently is confined to the lung, approximately 40 per cent of the patients with carcinoma of the lung will remain well 5 years after operation. The prognosis is even better for the patient who has a primary carcinoma in a solitary peripheral pulmonary nodule. More than 75 per cent of these patients have remained well following removal of their neoplasm.

Thoracic surgeons are endeavoring constantly to improve the technical aspects of treatment of bronchogenic carcinoma. Supplemental irradiation and chemotherapy appear encouraging. Undoubtedly, therapy will become more effective in the future, but much can be achieved now if more of these patients receive the best presently known treatment during the initial phase of their disease. Cancer of the lung is serious, but the prognosis is by no means hopeless.

If the physicians of America will join in a concerted effort to reduce the incidence of carcinoma of the lung, to diagnose the disease when symptoms first appear, and to administer the most effective treatment promptly, improvement in the over-all prognosis for the patient will result.

—G. V. BRINDLEY, JR., M.D., Temple.

Don't Kill the Goose

Voluntary health insurance has proved a valuable means for meeting the costs of medical care in this country, and the champions of centralized government would like nothing

better than to see voluntary health insurance fail.

The payments insurance plans have had to cover and the premiums they are having to charge reflect increasing medical care costs. Among the factors causing the increase are new methods of diagnosis and treatment which have meant better care. But it must be acknowledged that some patients, hospitals, and physicians have not been as careful as they should be to conserve insurance reserves by *guarding against unnecessary hospitalization, needless procedures,* and *confinement of patients for periods longer than are required for good care.* On the other hand, certain provisions of insurance contracts encourage these practices, and insurance carriers themselves must be willing to help solve the problem.

Cooperation of all parties to eliminate unnecessary expenditures is needed to help stabilize medical care costs and prevent the necessity for such high premiums that hospital and medical care insurance ceases to be attractive to and practical for the American public.

To this end, Dr. Russell L. Deter of El Paso, chairman of the Committee on Voluntary Health Insurance and Health Care Costs of the Texas Medical Association, has written presidents of the county medical societies, urging them to initiate a study of the voluntary health insurance problem in their own areas, with particular emphasis upon abuses which might have crept in.

He has pointed out that under voluntary health insurance we are approaching the thing which is so objectionable in government medicine when total prepaid insurance exists, that is, abuse of these services. Although fire insurance does not necessarily increase fires, and life insurance does not increase the death rate, the introduction of health insurance is followed by an upsurge in the utilization of personal health services. Needless hospitalization and other unnecessary use of insurance cause an increase in premiums.

The patient with health insurance properly feels freer to ask for medical care he needs than the patient worried over how he will meet expenses. The physician or hospital able to rely on insurance to pay part or all of the fees and charges will have less occasion to mark off accounts as unpayable than without such means of reimbursement. Nevertheless, a tendency on the part of patients to be indiscriminate in their demands because the service will be "free" and on the part of hospitals or physicians to be less than meticulous in their relations with insurance plans could price voluntary health insurance out of reach of the public and thus "kill the goose that laid the golden egg."

Mortar, Pestle, and Stethoscope

Within the memories of doctors of medicine practicing today, the doctor had the burden of dispensing his own medicine, for there were few qualified pharmacists. Likewise, there were few drugs, and quinine, castor oil, epicac, and calomel were prescribed in great quantities to be taken with distaste by the patient.

A corps of well trained pharmacists and a wide variety of effective and palatable drugs now help the doctor do his job better and more easily. It is appropriate, therefore, for the medical profession to salute the pharmaceutical industry and dispensing pharmacists as they celebrate National Pharmacy Week, October 5-11.

The increases in life expectancy from 49 years in 1900 to 70 years in 1957 may be attributed in no small measure to the combined efforts of the medical and pharmaceutical professions. At the beginning of the century, it took an average of 3 months' wages to pay the hospital bills resulting from a case of pneumonia; today the disease often is cured at home at an average cost of only 5 hours' wages for drugs. Before insulin, 2 of every 3 diabetic patients died of diabetic coma; today death from coma is extremely rare. Hundreds of antihistamines, more than 5,000 sulfa drugs, more

than 4,000 antibiotics, and more than 20,000 steroids have been synthesized and described. As Dr. Theodore Klumpp, president of Winthrop Laboratories, told an audience at the Texas Medical Association Public Relations Conference in Austin last month, ". . . the most significant and encouraging aspect of medicine today is the fact that at long last we have learned how to go about picking the lock of nature's hidden secrets."

Just as physicians and pharmacists in research and development of drugs must work together, so the physician and the pharmacist in the corner drugstore must cooperate in patient care.

A survey reported in the August issue of the American Pharmaceutical Association *Journal** points to areas in which improvements are most needed in relation to the two professions. According to 969 physicians and 357 pharmacists who answered the questionnaire:

1. Physicians should write more complete prescriptions, especially regarding refill information.
2. Physicians should be advised of the legal restrictions on drug sales.
3. Pharmacists need to eliminate unethical and illegal dispensing practices, and physicians should strive for fair sample distribution.
4. Physicians and pharmacists should work together to supply appropriate medical information to the public so that undesirable situations do not occur.
5. Pharmacists need to work out a convenient emergency service program to serve the needs of their community.

Today a few pills costing several dollars are often the equivalent of what used to be a serious illness with long disability, loss of earnings, hospital and nursing expense, and a convalescence that sometimes lasted for months. Development of newer and better pharmaceutical products, skillful use of drugs already available, and explanation to the public of what is being done to provide good medical care at moderate cost are the joint responsibility and privilege of the doctor and the pharmacist.

*Johnson, D., and Chambers, M. A.: Physician-Pharmacist Relations, J. Am. Pharm. A. (Pract. Pharm. Ed.) 19:488-489 (Aug.) 1958.

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President's Page

MEDICAL KNOWLEDGE IS COSTLY

DR. SMITH

When we repeated the Hippocratic Oath and made it our own, we accepted some responsibility for the ongoing of medical knowledge. When we were students in medical school, we accepted not only the knowledge of others but the financial support of others, for the tuition we paid was a small percentage of what our education cost.

It may not be possible for each of us to do much direct teaching of our skill and knowledge. Nor may it be practical to try to pay back dollar for dollar the philanthropists whose endowments once went a long way toward covering the costs of educational institutions or the taxpayers whose support has been the backbone of state operated schools. Nevertheless, we can share in the dissemination of medical knowledge and in a measure pay our debt to those who made it possible for us to become doctors by donating to the American Medical Education Foundation.

By 1951, it had become evident that without considerable financial help from new sources this nation's medical schools could no longer turn out competent physicians in the numbers required to give the increasing population the high type of medical care Americans have come to expect. That year the American Medical Education Foundation, a nonprofit organization, was established. Since its inception, the American Medical Education Foundation has been the channel for more than $7,000,000 in contributions to medical schools across the land—including the three in Texas. Unfortunately, the need continues to climb faster than donations.

November will be the month during which the Texas Medical Association's Committee for the American Medical Education Foundation, of which Dr. D. J. Sibley of Fort Stockton is chairman, will carry on this year's intensive campaign for funds. In addition, the committee is emphasizing big city campaigns and big gifts campaigns, but it is now that the attention of most doctors should turn toward the work AMEF is doing and what part in good conscience they should play in its support.

During 1957, there were 82 approved medical schools in the United States with three additional new ones developing. The total enrollment of undergraduate medical students was 29,130, the largest enrollment in history. Furthermore, the number of individual applicants for entrance into medical school was on the upswing again after reaching a low level in 1954-1955. More students, although necessary to provide future populations with well trained doctors, create a burden on already existing facilities and faculty without at the same time contributing their proportionate share to the cost, for it is estimated that tuition covers less than 20 per cent of the expense necessary to teach a medical student. At that, tuition in 1956-1957 averaged $720 for resident students as compared with $646 in 1954-1955, a sum which can be a real problem to many would-be students.

Year after year since AMEF was established, Texas medical schools have received more in grants from AMEF funds than has been contributed to the foundation from Texas. In 1956, Texas had 491 contributors; in 1957, there were 1,209. Yet, contributions in the state the same years increased from $20,145 to only $29,719.

The Woman's Auxiliary to the Texas Medical Association has taken a great interest in AMEF and last year donated more for that cause than any other state auxiliary—a total of approximately $14,000. The Auxiliary again this year is using many methods for raising AMEF funds, the chief one being the sale to doctors and their families of Christmas cards designed specifically for the purpose by Mrs. Sibley, wife of the Association's AMEF chairman. County auxiliaries throughout Texas will take orders for these cards. A box of 25 cards is sold for $2.50.

It has been said that it is not the necessities that make for superlative medical education, but rather the luxuries—the research, the study programs, the new equipment, the many activities which may not be readily apparent to the uninitiated—which set an exceptional school apart from the ordinary. Today, even the necessities are difficult to come by, and each of us will want to heed the call when it comes from our local AMEF committees.

Howard O. Smith M.D.

ORIGINAL ARTICLES

Radioisotopes In Obstetrics And Gynecology

COLVIN H. AGNEW, M.D.

Galveston, Texas

ARTIFICIALLY produced radioisotopes have found broad use in gynecology, but only limited application in obstetrics, since investigative procedures in normal pregnant women using radioactive materials are not routinely recommended. Concern over needless fetal radiation has imposed restrictions in evaluating normal physiologic processes in humans, even when the amount of this radiation is small. This presentation will deal rather broadly with the application of radioisotopes in obstetrics and gynecology.

Dr. Colvin H. Agnew, assistant professor of radiology at the University of Texas Medical Branch, presented this paper at a postgraduate course in obstetrics and gynecology at the Medical Branch on March 20, 1958.

Radioisotopes can be used satisfactorily for placenta localization in the practice of obstetrics. Therapeutically, radiogold has a place in controlling ascites and pleural effusion in ovarian carcinoma, and radiocobalt and radiogold may be useful in cancer of the uterus.

LOCALIZATION OF PLACENTA

At this time, the only significant use of radioisotopes in obstetrics appears to be in the localization of the placenta. Blood volume, iron utilization, and placenta transfer are among important studies in which the medical indications may outweigh the radiation hazard and, therefore, may reasonably be undertaken.

Browne, in 1951, called attention to the usefulness of radiosodium in the localization of the placenta.[4] Radiosodium has the disadvantage of very rapidly disappearing from the blood stream, and, subsequently, radioactive iodinated serum albumin has largely replaced radiosodium.[14] The technique is simple. It can be carried out at the bedside. It is prompt. The radiation hazard, as calculated by Weinberg, is thought to be 20 milliroentgens to the fetal body and 3 r to the thyroid. The fetal gonadal dosage, as calculated at the University of Michigan, during pelvimetry is 150 milliroentgens. This is lower than at most facilities, because they took simple, but special, steps to minimize the dosage. The dosage received in gonadal tissue is the subject of an investigation now in progress at the University of Texas Medical Branch.

Method.—The scintillation detector is placed over the heart and 5 to 10 microcuries of iodinated human serum albumin are injected intravenously. As soon as the rate is stable, the detector is moved to the uterus, and counting rates in various uterine segments are compared to the cardiac counting rate. When the placenta has an anterior fundic implantation, the counting rate is almost equal to the cardiac counting rate. The finding of a high counting rate over the lower uterine pole indicates a low insertion. A low counting rate over the lower uterine segment and the fundus implies a posterior implantation. Browne reported 3 cases of no localization before Spalding's sign became positive, indicating placental circulation shut-down and fetal death (fig. 1).

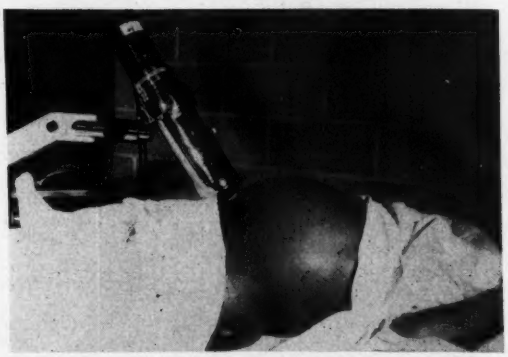

Fig. 1. A standard 1-inch thallium-activated sodium iodide detector, in a well-shielded housing connected to a ratemeter, is shown in position over the lower uterine fundus.

Reliability.—Weinberg had between 79 and 94.5 per cent accuracy of prediction, depending upon how one interpreted his figures (table 1). The accuracy of placenta localization by roentgen ray probably does not exceed 90 per cent. If one is employing a method requiring radiation, it appears that the isotope method would provide the same degree of accuracy with somewhat less fetal radiation.

TABLE 1.—*Placenta Localization with a Radioactive Isotope.*

Accuracy of prediction:	
Correct	41
Equivocal	3
Not proved, but clinically correct	8
Total	52

After Weinberg, A.; Rizzi, J.; McManus, R.; and Rivera, J.: Localization of Placental Site by Radioactive Isotopes, Obst. & Gynec. 9:692-695 (June) 1957.

These data indicate a reliable accuracy of prediction of placental localization.

THERAPY

When isotopes first became generally available, it was hoped that this modality of radiation would provide a significant improvement in the salvage of cancer patients. These hopes have not been fulfilled to the extent anticipated. However, some definite palliation has been encountered through the use of radiogold or chromic phosphate for the suppression of ascites and pleural effusion resulting from ovarian carcinoma and through the use of radiogold as an adjunct to parametrial radiation for carcinoma of the cervix. This will be amplified.

The use of cobalt 60, in lieu of radium, has been widely accepted and employed. It has certain advantages in lower initial cost and its solid state. Since radium salts may be spilled in the event of rupture of the glass tube and metal housing, radium accidents pose a serious decontamination problem that solid material would not create. It can be fabricated in a variety of configurations and strengths. For dosimetry purposes, it may be expressed as equivalent milligrams of radium, so that those whose experience has been with radium will be familiar with dosage when cobalt is used in intracavitary and interstitial applications. Its chief disadvantage is its relatively short half-life (5.27 years). This complicates the maintenance of a complete stock of sources.

In teletherapy machines of kilocurie strength, cobalt has become an important source of external gamma radiation. It provides a means of increasing daily parametrial radiation with some skin-sparing effect and of producing an effective dose rate in larger women.

OVARIAN CARCINOMA

To turn to the management of specific gynecologic problems, the present use of radiogold or chromic phosphate in the management of ovarian carcinoma is well established. There has been some doubt as to the routine use of postoperative radiation in ovarian cases. If the gynecologist is confident that the tumor has been removed, there is no indication for radiation. On the other hand, if there is positive evidence of metastatic spread, it seems to me that radiation is logically employed.

Mueller first reported the human use of artificially produced isotopes for palliation of ovarian carcinomatosis.[11] Before 1949, radiogold was not available, and he employed cyclotron-produced zinc^{63}. Since 1949, radiogold has been available and has replaced radiozinc. In addition, chromic phosphate has been employed, and Jaffe[10] has pointed out that one of its principal advantages is its much longer half-life. There is some difficulty in the development and control of colloidal particle size, which has been satisfactorily solved in the case of radiogold, so that most users, on the basis of colloidal particle size, prefer the gold to chromic phosphate.

Regarding the distribution of colloidal radioactive particles, they have been demonstrated to deposit in large quantities on the serosal surfaces when injected into the peritoneal and pleural spaces. Tissue assay and autoradiograms have not accounted for all the isotope injected, but assays of blood and urine show that there is very little absorption or excretion.[3] The treated serosa shows a variably thickened surface with irregular obliteration of space and some zones of necrosis or hemorrhage and organized fibrin.[8] It has not been shown that these effects are directly due to radiation, but radiation provides the most likely explanation.[6]

Technique.—There are several methods of injection, but all use essentially the same features. The sterile radioactive material is displaced from its shipping container through the use of solutions into the proper cavity by a remote operator, to minimize his radiation exposure. Various sized needles and plastic tubes have been used, and generally the effusion or ascitic fluid is removed before the radioactive material is introduced. The patient is instructed to move about for the first few hours, to promote uniform distribution of the radioactive material. These patients usually require no special nursing care. Relative isolation is desirable, and they should be hospitalized until the remaining activity is about 35 millicuries.

those of stress and have appeared when the patient became engaged, when the mother-in-law came to live in the household, when the son went overseas, and when the husband started noticing the blonde next door. To paraphrase Francis Peabody, the clinical picture is not just a photograph of a woman sick in bed; it is an impressionistic painting of the patient surrounded by her home, work, relations, friends, joys, sorrows, hopes, and fears.

Dr. Robert N. Creadick, associate professor of obstetrics and gynecology at Duke University Hospital, Durham, N. C., presented this paper at a general meeting at the annual session of the Texas Medical Association on April 22, 1958, in Houston.

The author advocates a middle of the road view in the treatment of the so-called menopausal disorders calling upon the help of the gynecologist, psychiatrist, psychologist, and analyst. In his opinion, hormones seldom should be used, but instead the patient must be reeducated about herself.

CAUSATION

Any discussion of menopause involves the demonstration of two striking findings: (a) the symptoms frequently appear when no suggestion of climacterium can be shown physiologically, (b) a careful investigation of the patient's biography and total personality reveals similar symptoms at puberty, marriage, childbearing, bereavement, divorce, and similar situations. Usually better results are obtained from psychotherapy than drugs. It would be wise, however, to remember Mayers' warnings that some of the symptoms are useful; that we may not have any substitute defense to offer the patient; and that depression and involution are often concomitant.

As gynecologists, we also point to potential dangers. The psychiatrist should not neglect postmenopausal bleeding, no matter how scanty. Curettage is imperative. The misuse of hormones now has become a major problem in referred clinic practice by masking symptoms of cancerous growth. Novak[7] once said, "One of the greatest abuses of endocrine therapy is in the management of menopausal symptoms. Most of these women need no estrogen therapy at all. All that we can aim to do with estrogens is to tide the woman over certain little symptomatic bumps that she experiences during the period of transition. The majority of women can readily tolerate these symptoms, and they are much better off to be given no estrogen at all and get the readjustment over with. But if we keep pumping into these women the very substance that their economy is trying to get along without, we only prolong the menopause. Again, you all have seen women who have been given 'shots' for many years, which is never necessary. Those are the women we might have to think about in connection with cancer." When all genital tissue has been removed (not just after radium or roentgen ray), we might consider continuous hormonal therapy quite safe, but rarely otherwise. A satisfactory explanation of the events to be expected at "the change" is that menopause is the mirror of adolescence.

Specifically, what are the causes of "hot flashes"? It depends on one's author preference how this question is answered. My feeling is that both endocrinic and emotional factors account for the symptom. Reynolds[10, 11] long ago demonstrated that decreasing estrogen supply produced increased fragility of capillaries, but is this a local effect or from autonomic influences? The mechanism of flushing or sweating suggests changes in the caliber of small vessels and the hyperfunction of sweat glands, which distinctly should incriminate the autonomic nervous system. This puts most of the burden upon the patient's emotions.

MANAGEMENT

How would this be explained to the patient? Initially, an accurate history of the three or four most recent episodes should be recorded, including the actual time of day or night. Secondly, comparisons of the worst episodes with days when the patient was fairly free from symptoms should be discussed. Then, an explanation should be offered as follows: Flushing of the skin is just like blushing or flying into a rage. Warm feelings usually are associated with embarrassment, sexual excitement, or anger, in the absence of fever or other external causes. All patients will understand the terms "blushing" or getting "hot under the collar." Often a menopausal patient can be coached into recognition of the emotional factors by asking about her shyness and blushing as an adolescent when required to do high school public speaking or upon first meeting an attractive boy her own age. And the patient must be further coached by asking, "What do you do when you get angry or peeved? Give an example."

The patient already has been primed by "grandmaw" to think that display of any sexual interest is abnormal after menopause. "Now you are the faded flower," she was told. Just the opposite is the truth. Most women have an increased desire for normal expression of affection and sexual congress after menopause which may concomitantly produce guilt feelings. This, despite two obvious reasons for some increasing desire: (1) they no longer fear pregnancy and (2) they are rid of the interfering

nuisance of bleeding. It is difficult for them to express this to their doctor unless they trust him implicitly. When the husband is impotent or his interests are elsewhere sublimated, the patient will have nocturnal dreams of intercourse and may awaken fearful, perspiring, and agitated, or sexually stimulated and guilt-laden. It is important to reassure her that "grandmaw" told her a lie, that we have many patients still sexually active in their seventies, and that now is the time for rewarding expressions of love and companionship—the household chores are fewer, the children are married, the sharing of common interests and expression of personal talents like painting and horticulture can actually begin.

The individual reactions may vary, naturally, according to the patient's background and personality structure. The obsessive, perfectionistic woman will always have been a little frigid, and she may get depressed at this time. The overly maternal woman will have neglected her marriage in favor of her children, and must adjust to a mature heterosexual relationship which she previously half avoided. The husband's problems actually may be paramount in the form of sudden impotence at 45 years of age, or preoccupation with work and the "almighty dollar" to satisfy his own neurotic needs.

It is taxing indeed for the physician who must enter into this turmoil to render impartial assistance; especially when his own bias is concerned with an authoritarian, tyrannical father, a domineering mother, a rigid undemonstrative background, frightening physical punishment for masturbation, and threats which might well lead to premature impotence and fear of his own sexual incapacity. To add to the personal problems, he may be faced with a depressed or agitated menopausal patient who needs an operative procedure. This is a time to delay any major procedure, unless for malignancy, since the symptoms may be confusing to interpret and a total emotional breakdown may occur postoperatively.

Should we give these patients hormones? I do not think so; it is safer to use mild sedatives and expend efforts otherwise in reeducating the patient about herself.

Mrs. L. W. Halle, who has noted that there has been an increase in the intensity and duration of menopausal disorders in recent years, has presented the results of a survey of 2,000 native African women. "In general, no subjective menopausal disorders were observed in women who had had no contact with Europeans, and an increase in the incidence of these disorders proportionate to the extent of the contact was seen in those who had had such contact." She concluded that psychic as well as hormonal factors play an important role in causing menopausal disorders.[5]

CONCLUSION

It does not seem necessary to use the radical ablation of the surgeon to cure any of the foregoing difficulties. It is inadvisable to employ the sometimes radical ideas proposed by the psychologist. The psychiatrist's direct approach is often not too revealing. The analyst can contribute considerably by his "abreactive method," but it is not very practical nor can we always agree with the conclusions. There must be a middle road which all of us can tread by combining the digital experience of the gynecologist with the insight and ventilation produced by the psychiatrist, occasional psychological pressure, and when necessary, a deeper probing by the analyst. This ideal status, it is true, will be reached by only a few. It is hoped that realization of the inconsistencies and foibles in our so-called modern practice will be accompanied by our combined scientific efforts to make the patient better. The aged and experienced physician studied affect even though he had no psychiatric training. There is no doubt in our minds about the realization of pain, but our methods or interpretation and certainly our empirical therapies have proved almost worthless. Recognition of the value of psychotherapeutic results eventually must be reached. When this goal is attained, more and more patients will be saved from operation or drug addiction.

Again, let us reject what is primitive in our former teaching, absorbing more intimately the basic personalities of our patients. As David Hume has said, "Indulge your passion for science . . . but let your science be human . . ."

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Iron Deficiency Anemia in Pregnancy

Treatment with Imferon

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ANEMIA IN PREGNANCY often can be a serious problem. Iron deficiency anemia is responsible for the greater majority of the anemias associated with pregnancy. It has been stated that this deficiency occurs in from 40 to 70 per cent of all pregnancies to a greater or a lesser degree. The time available for treatment of these patients is limited. Many are not seen until well into their gestations, and they frequently require blood transfusions for safety of both infant and mother. Although whole blood is a precious commodity as well as an invaluable therapeutic agent in its proper sphere in use—often enough it is life saving—it is not to be administered lightly. Transfusions are given so frequently that often the potential dangers from their use are not properly appreciated. However, in spite of the fact that blood transfusions save lives, every transfusion carries the risk of producing hepatitis, developing reactions from incompatability, and introducing infection. In 1956 alone, 2,000,000 Americans received 4,500,000 pints of blood.[17]

Dr. H. L. McClanahan, with the Department of Obstetrics, Hermann Hospital, presented this paper for the Section on Obstetrics and Gynecology, Texas Medical Association, at the annual session in Houston, April 22, 1958.

Iron deficiency is responsible for most anemias of pregnancy. In mild anemias the treatment of choice is iron salts administered orally, but in severe anemias intramuscular iron may be valuable. Results in a series of 50 patients injected with Imferon show it to be an effective preparation.

In the field of obstetrics, there are catastrophic complications where the immediate administration of blood, frequently in large amounts, is imperative. It is not this administration with which we are concerned but the elective transfusions given the gravida in the prenatal period. Holly stated, "It is well established that the hemoglobin, erythrocyte, and hematocrit values decrease to a variable degree during normal pregnancy. Some women maintain normal hematologic values during gestations while others become profoundly anemic. The majority of pregnant women, however, are found to have reduced hematologic values which lie somewhere between these two extremes. Experience of the past two decades has shown that anemia of pregnancy is, for the most part, the result of an iron deficiency. In spite of the fact that the more marked decreases in hematologic values are known to result from iron deficiency, slight or moderate drops in hemoglobin and hematocrit have been called 'physiologic anemia' and have been attributed to hemodilution. In the light of our present knowledge of iron metabolism, it would seem more reasonable to assume that these minimal reductions in blood values are the result of iron deficiency rather than of increases in blood volume."[6] There are three groups of women who enter a pregnancy. The first group is composed of those women who have a normal hematological picture at the beginning of their pregnancy and maintain this hemogram throughout their pregnancy. This group is composed of those who have a full complement of iron stores at the beginning of their pregnancy. The second group is composed of those women who have a partial complement of iron stores. This group enter the pregnancy with relatively normal hemoglobin levels and maintain it through the second trimester and in the late second trimester become anemic and are found to have a hemoglobin in the 10 Gm. per 100 cc. range. The third group constitutes the patients who have depleted iron stores and enter a pregnancy in the 10 Gm. range. These patients become profoundly anemic as the pregnancy progresses and the demand for iron is accelerated by fetal demands and the maternal red cell mass increase.

By use of biochemical procedures designed to detect iron deficiency anemia before gross evidence of the deficiency manifests itself in the peripheral red cells, it can be shown that iron deficiency is responsible for hemoglobin, erythrocyte, and hematocrit decreases when the bone marrow is normal.[6]

IRON METABOLISM

There are three periods of great demand for iron during life: infancy, adolescence, and pregnancy. We are concerned here with the latter. During the 9 months of gestation about 500 mg. may be lost and during the 6 months of lactation, an additional 150 mg. Table 1 illustrates the iron balance in

pregnancy. In addition the female requires about 150 to 300 mg. per year for menstrual losses. These represent stress periods in iron metabolism and serve to indicate how often the extra requirements of 1 to 2 mg. per day exceed the amount which the individual can absorb from her diet.[3] Therefore the iron stores become important in supplying the demand for increased iron. The iron compartment in the adult may be seen in figure 1.

TABLE 1.—*Iron Balance in Pregnancy.*

Debit (mg.)		Credit (mg.)	
Red cell increase ...	500	Red cell decrease ...	500
Fetus	500	Amenorrhea	150
Blood loss at delivery	150		
	1,150		650

Deficit = 500 mg. + 150 mg. if nursing

In a 40 week gestation 1,000 mg. must be mobilized, 500 mg. for the fetus and 500 mg. for the red cell mass increase. The distribution of this demand by trimester is 2 mg. per day in the first trimester, 4 mg. per day in the second, and 10 to 12 mg. per day in the third. The absorption of this amount demands maximum efficiency in the absorption and transport of ingested iron, and often the iron stores must be drawn from to supply the excessive demand.

Studies of iron deficiency anemia in pregnancy indicate that those patients showing a preexisting iron deficiency at the onset of pregnancy becomes exaggerated as the patient's red cell mass increases and the fetus strips the mother of iron. Her iron stores are low and soon become exhausted; the iron normally used in peripheral blood is also depleted; and a severe anemia results for the mother and is sometimes carried over to the infant.

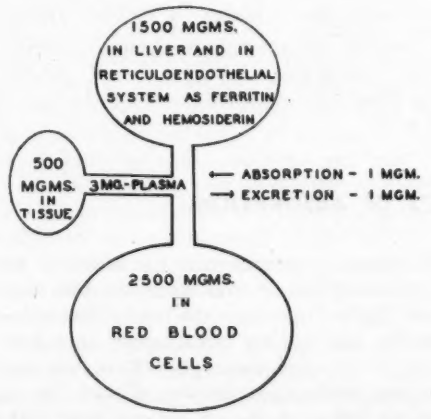

Fig. 1. Iron compartments in an adult. Ideally 4.5 Gm. of iron constitute total body iron. The 1,500 mg. in the liver is storage iron and readily available for erythropoietic activity; this reserve is the buffer against development of iron deficiency anemia.

INCIDENCE OF ANEMIA

Iron deficiency anemia is the most common type of anemia and the literature is enormous on this subject.[2, 7, 11, 12, 16] A study of private patients by Bunce and associates[2] showed that 38 per cent of all patients had this condition. The ratio of females to males was 4 to 1. They considered chronic loss of blood, poor diet, gastric anacidity, hypothyroidism, pregnancy, and chronic infection as important in causes of the anemias.

In pregnant patients Lund[11] in screening 4,015 gravid women at the Charity Hospital in New Orleans in 1951 showed that more than half of them were anemic according to commonly accepted standards. The incidence varies, but the literature bears proof of anemia's high occurrence.

VITAMIN SUPPLEMENTS

Multiple oral iron preparations have been used, and some of the most expensive hematinics have passed through my hands. The object of therapy is to provide iron in available forms and adequate amounts correctly to prevent the deficiency. The efficacy of multiple remedies or "supplements with iron" is unscientific. The supplements do not appreciably improve the hematological response and are an additional expense, but, more important in some instances, they may obscure the correct diagnosis.

The use of iron salts in correcting an iron deficiency state is well established. There are many such preparations available. An important point to remember when prescribing an iron salt is to recognize the amount needed in milligrams to furnish 25 mg. of utilizable iron. The more popular forms of iron salts now available are listed in table 2, showing the amount required to be given to furnish 25 mg. of utilizable iron.[4]

Hagedorn stated, "There is no reliable, well-documented evidence that colloidal iron preparations or those prepared in conjunction with a catalyst have

TABLE 2.—*Relative Efficacy of Different Iron Salts.*

Iron Salt	Amount Needed (in mg.) to Furnish 25 mg. of Utilizable Iron
Ferrous sulfate	600 (10 grains)
Ferrous sulfate exsiccated	400 (6 grains)
Ferrous sulfate anhydrous	333 (5 grains)
Ferrous gluconate	1,000 (1 Gm.)
Ferrous carbonate	800 (12 grains)
Ferric ammonium citrate	7,000 (7 Gm.)

any advantage over ordinarily prescribed forms of ferrous sulfate . . . In addition, there is no evidence that the oral administration of dilute hydrochloric acid is effective in the utilization of iron and, consequently, it should not be prescribed."[4]

Oral iron is the route of choice, but there are cases in which the parenteral route is desirable and necessary in treating iron deficiency anemia.

PARENTERAL IRON

An intramuscular dextran-complex was developed by the English, and in excess of 7,000,000 injections of this material have been used in that country. Recently this product was made available to the physicians in the United States, and the use of this material is the basis of this report. The complex contains 50 mg. of elemental iron per cubic centimeter, is stable in vitro and in vivo, is isotonic with tissue fluids, and does not precipitate in plasma over a wide range of hydrogen ion concentration. Imferon* at present is the only therapeutically effective iron preparation for intramuscular use.[4, 9, 13, 14]

The indications used for intramuscular iron are as follows:

1. Intolerance to oral iron.
2. Gastrointestinal disease.
3. Poor absorption of iron.
4. Resistance to oral iron.
5. Depletion of iron stores when oral iron is ineffective in rebuilding iron stores.
6. Iron deficiency anemia discovered late in pregnancy.
7. Patient uncooperative in taking oral medication.

METHODS AND MATERIALS

This patient study was exclusively from the clinic group of the Hermann Hospital. New patients were screened at their initial visit by determination of capillary hemoglobin. More than 1,000 patients were screened by this method, and those having hemoglobin of less than 10 Gm. per 100 cc. were referred to our clinic for evaluation. Venipuncture was done without stasis, and the samples were studied in the departmental laboratory by registered technicians trained in hematological techniques. All blood pipettes were certified by the United States Bureau of Standards. A routine cyanmethemoglobin determination, hematocrit, and red cell count were done. Sickle cell preparations were obtained in Negro patients. Reticulocytes were identified by the brilliant cresyl blue stain. Serum iron determinations were obtained initially, and serial determinations were followed on selected patients. Whenever indicated, serum bilirubin and erythrocyte fragility determinations were obtained. Only patients having what we considered an equivocal iron deficiency anemia were accepted for parenteral treatment.

Each patient served as her own control, inasmuch as she had been on a standard supplement containing 3 grains of ferrous sulfate and multiple vitamins for at least 1 month with instructions to take 2 tablets three times a day. After that period of time if there was not a satisfactory hematological response, she was accepted for parenteral therapy. An exception to this was made with new patients registering at 34 weeks of gestation or later with a hemoglobin less than 9.9 Gm.

METHOD OF TREATMENT

The patients were seen in the clinic twice weekly. We endeavored to duplicate as nearly as possible the handling by a private practitioner with regard to convenience and practicality of outpatient treatment with serial injections.

The patient's anemic status was evaluated and the specific dosage was calculated using the formula:

$$\frac{2 \times \text{wt.}\ (14.8\ \text{Gm. of Hgb.—patient's actual Hgb.})}{50\ (\text{mg. per cc. of Imferon})} = \text{no. of cc. of Imferon needed}$$

With the required amount determined the patients were first given a 1 cc. test dose. Three to 5 cc. doses were given twice a week until a calculated amount had been administered. No patient was treated who gave a history of multiple allergies.

Laboratory determinations obtained weekly included hemoglobin, hematocrit, and reticulocyte count. Bone marrow aspirations were obtained when indicated.

RATE OF ABSORPTION

To answer a question that has arisen as to the rate of absorption of iron when injected into the muscle, figure 2 illustrates the results obtained from 1 patient. She had an initial serum iron level at 8 a. m. of 37 micrograms per 100 cc., the normal serum iron level ranging between 60 and 190 micrograms per 100 cc. At 8 a. m. she was given 250 mg. of intramuscular iron (5 cc.), and thereafter at 2 hour intervals her serum iron level was checked. The next question that arises is, where does this iron go? Was it deposited in parenchymal organs or

Lakeside Laboratories, Milwaukee.

transported to the bone marrow for utilization? To follow this point we did bone marrow aspirations on this patient before treatment in 5 days.

Prior to parenteral iron therapy the pathologist commented: "On routine studies no significant abnormalities are noted in these smears and sections of bone marrow aspirates. However, the iron stain method does reveal a definitely decreased free iron content both on the low sideroblast count and on the over-all evaluation of free iron granules within this section."

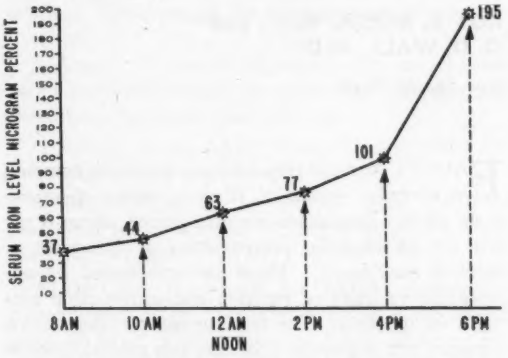

Fig. 2. The rapidity of absorption of intramuscular iron. At 8 a. m. 250 mg. (5 cc.) of Imferon was injected.

Five days post-treatment the pathologist reported on bone marrow aspirates: "The patient is showing unequivocal increased iron content and increased sideroblastic response over a period of approximately 5 days. The iron content of the bone marrow by special stain method now appears to be normal as opposed to a definite decrease on the first specimen."

This, we assume to be proof positive that the injected iron was picked up immediately from the injected site and from there transported to the bone marrow, and in a period of 5 days was incorporated into red cell precursors of iron containing normoblast known as sideroblast or siderocyte. The reticulocyte count rose from a low 0.4 per cent to 6.2 per cent in 10 days after beginning of treatment. The ultimate test of this material was a hemoglobin of 12.2 Gm. and hematocrit of 37 per cent, 3 weeks from the beginning of treatment; the original blood values were 9.4 Gm. of hemoglobin and 29 per cent hematocrit.

Figure 3 illustrates the average hemoglobin and hematocrit levels before treatment and at 2 week intervals. The average pretreatment hemoglobin was 9 Gm., and 6 weeks after parenteral therapy the average patient had a 12 Gm. hemoglobin. The average number of injections per patient was 8.3, and the average patient received 26.2 cc. of Imferon.

DISCUSSION

It is logical to expect iron deficiency anemia in a large number of pregnant women. Iron is not excreted by the human in any but minimal amounts in normal circumstances. Blood loss is a chief channel of iron loss from the body. Many females are constantly in negative iron balance because of menstruation. The woman with partial or complete depletion of iron stores can not withstand the iron demands of pregnancy without becoming iron deficient and anemic. The narrow limits of iron absorption from her diet, even under conditions of relative iron deficiency, can not compensate for the iron loss of pregnancy unless sufficient reserves of iron exist at the onset of pregnancy.

Every physician has encountered cases of resistant iron deficiency anemia among his prenatal patients. These in the past had to be given whole blood, which was considered a necessity, but which was nevertheless a definite risk.[5] Many of the patients included in this study formerly would have required transfusion prior to delivery. This series of patients was treated as one might treat his private patients; injections have been daily or every other day. This is not practical for outpatients, but on the anemia schedule we saw our patients on Mondays and Fridays for approximately 3 weeks and then weekly for another 3 weeks. By this time the patients were usually in the late third trimester and were being seen weekly for prenatal checks; the few minutes extra time in the injection clinic were not a hardship.

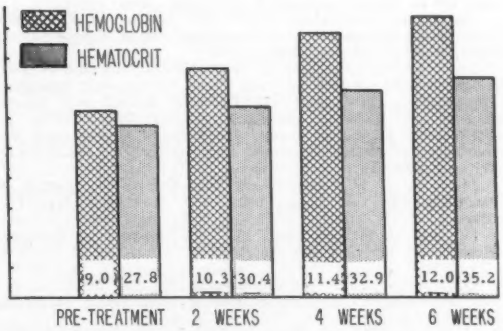

Fig. 3. Average hemoglobin and hematocril levels at 2 weeks intervals in 50 cases treated with Imferon.

The diagnosis of iron deficiency anemia does not require elaborate procedures. A well stained blood film and a serum iron determination are two important steps in the diagnosis. The calculation of the red cell indices is of value only when the iron deficiency anemia is of long standing. If doubt exists as to etiology, a bone marrow aspiration stained with Prussian blue and a sideroblast count less than

20 per cent is diagnostic of iron deficiency anemia.[1, 8, 10, 15]

CONCLUSION

Intramuscular iron is safe and effective in iron deficiency anemia. At times it is definitely indicated and should be the treatment of choice. It is advocated that oral iron should be used in mild iron deficiency anemias and parenteral iron in more severe forms where iron stores are depleted. This therapy should greatly enhance the handling of iron deficiency anemia associated with pregnancy.

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During the last two decades the proportion of the American population admitted to hospitals has more than doubled, Health Information Foundation reports. But the average length of stay per person has declined by almost half—from 41.1 days per person in 1935 to 22.4 days in 1956.

Face, Brow And Faulty Occiput Positions

A Study of the Clinic-Hospital Of San Angelo 1951-1957

ROY E. MOON, M.D., and D. D. WALL, M.D.

San Angelo, Texas

FAULTY cephalic presentations are fairly common in everyday obstetrics. If those which spontaneously correct themselves are disregarded, about 8 per cent of all cephalic presentations at the time of delivery are "faulty." These are represented by unfavorable varieties of position and unfavorable attitudes in the fetus. The unfavorable position which concerns this discussion is the occiput posterior, while the unfavorable attitude is the deflexed or extended head of the brow and face.

OCCIPUT POSTERIOR PRESENTATION

The occiput posterior per se does not necessarily interfere with normal labor and normal delivery, but because it not infrequently causes dystocia, it is an unfavorable position. Thoms showed that a short transverse diameter of the pelvic inlet causes the head to enter the pelvis with the occiput posterior. More recently, Caldwell and Moloy have shown that the configuration of the pelvis leads to characteristic engagement and affects the mechanism of labor. For example, in the anthropoid pelvis only engagement in the anteroposterior diameter is possible so that if the head starts labor with the occiput posterior, it will continue and present as such, and in most cases should not be rotated to occiput anterior at the time of delivery.

This is not to disregard the pelvic muscles and soft tissues. Approximately 70 per cent of fetal heads that are posterior early in labor will rotate spontaneously to the anterior position during labor. Those

Dr. Roy E. Moon presented the paper before the Section on Obstetrics and Gynecology at the Texas Medical Association annual session, April 21, 1958.

that do not may present themselves in the following ways:

1. The head may present in the posterior position on the perineum where spontaneous or low forceps delivery can be accomplished with or without rotation to the anterior position.
2. Partial rotation to the occiput transverse position may occur. Some advocate delivery with Barton forceps for the occiput transverse, especially in mothers with a flat pelvis. We have used Kielland forceps or Luikart forceps with double application for this presentation, first rotating the occiput anterior, then delivering.
3. Arrest of the head may occur with any of these positions at any level of the pelvis. The circumstances determine the course and treatment.
4. Primary or secondary uterine inertia occurs not infrequently in the course of labor.
5. Fetal distress may or may not occur, but must be looked for because of its frequency with occiput posterior position.

At the Clinic-Hospital of San Angelo, we had 257 patients with occiput posterior position in the second stage of labor. With a total of 4,033 deliveries between July, 1950, and the end of December, 1957, we had a percentage of 6.4 per cent of all deliveries in this position. Of the 257 cases of occiput posterior,

During 4,033 deliveries, there were 257 occiput posterior presentations, 9 face presentations, and 8 brow presentations. No operative interference is required in the majority of face and occiput posterior presentations; when indicated, the simplest procedure will give best results. In brow presentations, operative interference is usually required.

152 (3.8 per cent of total deliveries) were rotated to the anterior position before delivery (40 cases or about one-third were midforceps deliveries and the remainder were low forceps). In 3 of these that were rotated to the anterior position, delivery was not possible and cesarean section was done for "failed forceps."

In 105 cases (2.6 per cent of total deliveries), delivery was accomplished without rotation. Of these, 66 were delivered spontaneously, 29 were delivered by low forceps, and 10 were delivered by midforceps. In the midforceps group, rotation was attempted in all cases but not accomplished because we considered the force necessary to rotate the head to be excessive.

During the period of this study, we have done all deliveries. In general they all have been handled in the same way. For low forceps delivery, we usually apply the forceps and make gentle trial traction. If the head descends easily, we make no attempt to rotate it even if we know the position to be posterior. If there is any difficulty in descent, we remove the forceps and the position is determined, if necessary by palpating the orbital ridge, an ear, or both. If the occiput is posterior, we make a reasonable attempt to rotate it to the anterior position, usually by the Bill modification of the Scanzoni maneuver using Luikart or Tucker-McClean forceps. Occasionally with the occiput posterior, and usually when the occiput is transverse, we use Kielland forceps. Seldom do we utilize manual rotation. There are those who state that rotation always should be done before any traction is exerted to deliver the baby. This seems an extreme view, and we have had a few relatively easy deliveries from the posterior position in patients on whom attempts at rotation were abandoned because undue force was required. This should be true of the anthropoid pelvis or the excessively molded head.

We should like to think that all our forceps deliveries are "trial forceps" until delivery is accomplished. Dieckmann[1] stated that "I do not subscribe to trial forceps or to gentle trial forceps. I do not know what either precedure is. I believe that the properly trained man can determine on vaginal examination, which is done if necessary under anesthesia, whether or not he can safely deliver the baby with forceps. If he is in doubt, he should have consultation with someone who can determine this fact."

It can do no harm for us to admit that we sometimes do a cesarean section after we thought we had a vaginal delivery almost accomplished—and by the same token we occasionally have an easy vaginal delivery in a patient who has been treated as a potential candidate for an abdominal delivery.

"Undue force," "gentle traction," "excessive force," and other like terms defy definition. A story attributes to Bill the following definition of appropriate force to use: "It is the amount of force that can be applied to the forceps with the rollers of the table unlocked without moving the table." Presumably the force is parallel to the floor and not vertical. It is doubtful that the permissible force applied to forceps can be measured in terms of pounds of traction.

Titus[6] and others have pointed out that the traction on the head should always be in the occipitomental plane of the baby's head, no matter what the position, even with forceps to the aftercoming head in the breech presentation. Any other traction plane is more likely to give tentorial tears and brain injury.

FACE AND BROW PRESENTATIONS

Face and brow presentations are classified as unfavorable attitudes, and they certainly are serious causes of dystocia. The frequency of the occiput posterior presentation makes it of interest, but the

seriousness of the deflexed attitudes commend them to our study.

Any factor which causes extension or prevents flexion of the baby's head during engagement or labor can be said to cause face and brow presentation. Those usually listed consist of pure chance, multiparity with a lax abdomen, prematurity and neck tumors in the baby, tumors of the birth canal, placenta previa, contracted pelvis, and a short cord or one with many coils of cord about the neck. One author[3] has said that none of these causes is important, but he expressed the thought that two rather strange causes are important, that is, "increased extensor tone in the fetus and mild polyhydramnios." Almost everyone agrees that anencephalic monsters usually present by the face, and prematurity apparently predisposes to face and brow presentation.

These positions are practically always unengaged in early labor, and the maneuvers used for demonstrating disproportion between the head and the pelvis are positive for disproportion with a variable amount of the head overriding the pubis. If these maneuvers are carefully done, the face or brow presentation should be diagnosed. Many would say that if the physician finds either presentation, with an average or large sized baby and any degree of contraction of the maternal pelvis, a cesarean section should be done without any test of labor. This is true for those brow presentations which continue through labor, but many of them probably convert to face or occiput during labor. The face presentation usually will not be more serious than the occiput presentations. It seems reasonable that some test of labor is not too risky.

The diagnosis of face or brow presentation is not difficult. The examination and observation of the abdomen leads one to suspect the diagnosis. A pelvic examination will confirm or make the diagnosis. In actual practice, the diagnosis of face and brow presentation infrequently are made prior to the time of delivery. In an average series about one-third are diagnosed before the patient is placed on the delivery table.[5] In case of brow the diagnosis is made frequently after vaginal delivery or cesarean section by noting the peculiarly molded head and the caput over the frontal bones.

FACE PRESENTATION

In our series, we had 9 face presentations from the 4,033 deliveries (1 in 448). The combined average given in the literature is 1 in 553.[5] These 9 cases differed very little from average cephalic presentations. Five delivered spontaneously, 3 were delivered with low forceps, and in 1 the chin was posterior and in an attempt to rotate it anterior, the face was converted to an occiput posterior which was then rotated anterior and delivered with low forceps. This latter baby weighed only 5 pounds and 12 ounces. In 1 mother who delivered spontaneously, a hematoma was found in the right vaginal wall at the postpartum examination, but it cleared up without any treatment.

The chin posterior positions are usually said to be impossible deliveries as such with a normal sized baby; however, Kenwick[4] reported 4 spontaneous deliveries of normal sized babies from the posterior face position with all 4 alive and normal. This was the only series (139 face presentations and 26 brow presentations) reported that listed this possibility. In at least 2 of our cases, spontaneous rotation occurred from chin posterior to chin anterior. When this occurs, it does so lower in the pelvis than any other cephalic presentation. Often it occurs in sight, with the vulva distended. For this reason interference higher in the pelvis should be avoided, provided labor is progressing satisfactorily.

The cesarean section rate for face presentations among the reported series is not inconsistent with the general rate among cephalic presentations. None of our cesarean sections showed a face presentation.

The length of labor and complications of labor are as in average cases except that the second stage is prolonged slightly. Five of these 9 cases were diagnosed during labor and 4 were diagnosed on the delivery table. No babies were lost; 1 has had epileptic convulsions since the age of 18 months. (He weighed 9 pounds and 7 ounces at birth and was born spontaneously.)

BROW PRESENTATIONS

There were 8 brow presentations in this series of 4,033 deliveries, which gives 1 in 504 deliveries. This latter figure is about five times the collected average of 1 in 2,614.[5] Our small series likely accounts for this.

The course of labor is in marked contrast to the average cephalic presentation. In all but 2 labor was prolonged. All were allowed to proceed to complete dilatation. Of the 8 cases, only 2 were diagnosed prior to the delivery room. (Roentgen study revealed the condition in 1 prior to labor and in 1 during labor.) Three were delivered by low forceps. One delivered spontaneously and 1 was delivered by mid-forceps. The other 3 were delivered by cesarean section (2 after forceps delivery was tried and "failed.") No babies were lost and none showed evidence of injury.

The brow presentation is a formidable problem. The largest diameter of the head (occipitomental) must pass through the pelvis. This requires extensive molding of the head. Delivery usually requires as-

sistance. As in face presentations, delivery is easier with the (mentum) brow anterior. Forceps are difficult to apply properly, and to prevent damage they must be along the mento-occipital diameter of the head. Gentleness is more important than in occiput presentations. Titus[6] has said once the downward traction frees the head beneath the symphysis, delivery is accomplished by a slow sweeping motion that raises the handles of the forceps higher than in any other presentation—this conforms with the natural tendency to straighten and flex the head instead of extending it backwards.

It is good advice to conduct the labor and attempts at delivery for brow presentations on the premise that the patient is a likely candidate for cesarean section, because in a collected series[3] about 33 per cent of brow presentations came to cesarean section, and in the cesarean deliveries the fetal mortality ranges up to 40 per cent.

If internal version has a place in obstetrics, it should be in these cases. The ones who advocate it[4] specify that certain conditions must be present before this operation can be expected to be successful. These conditions are absence of disproportion, a fully dilated cervix, membranes intact or only recently ruptured, a displaceable head, adequate anesthesia, and an experienced operator.

SUMMARY

During 4,033 deliveries, there were 257 occiput posterior presentations, 9 face presentations, and 8 brow presentations. The first two of these differed little from the average obstetrical case. The brow presentations present a real problem.

CONCLUSION

In face and occiput posterior position, no operative interference is required in 70 per cent to 80 per cent of patients.

When operative interference is indicated, the simplest procedure generally will give the most satisfactory results.

In brow presentations, operative interference is usually required.

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The Community As the Patient Of Public Health

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THE GROWING CONCEPT of public health as the scientific diagnosis and treatment of the health status and health needs of communities has been discussed in the first presentation of this series.[1] This concept has been presented as a normal evolutionary development of health science that clearly states the limitations, the distinctive competence, and the body of knowledge that make public health a distinctive profession.

It has been pointed out that acceptance of this concept calls for a democratic team of professional equals from many different professional disciplines and backgrounds who must become the "doctor" of the body politic, that the very complexity of the community patient makes this necessary, and that leader-

Dr. E. G. McGavran, Dean, School of Public Health, University of North Carolina, Chapel Hill, presented this paper before the Conference of City and County Health Officers, April 21, 1958, in Houston.

This paper, second of three, discusses the community as the patient of public health. Like an individual, the community should have thorough history, examination, and laboratory tests before treatment. Major improvement in the statistically important diseases has come through community approach: controlling the environment, modifying reaction to the environment, or isolating the environment.

ship in the public health profession must be earned, therefore, by leadership qualities, not by background training or degrees.

Also presented has been the challenge to the young medical recruit of the public health profession under this concept, the challenge to community-side teaching of public health, and the challenge to all public health people to explore the virgin territory of community research with its unlimited promise to human welfare.

This concept is acceptable to organized medicine and the private practitioner of medicine because it accepts the physicians' eminence in the field of diagnosis and treatment of individuals and takes public health practice out of this field to a new patient, the community. This new patient can now be considered in more detail.

EXAMINATION OF COMMUNITY

From the health science point of view, what is a community? There can be any number of different forms of communities. A ship may be a community. An industry may be a community. A religious group may form a community. Most commonly in this country, however, the community is a political subdivision, a city, county, state, or nation. Therefore, I have used the term body politic to describe any such governmental unit which frequently by law comprises a specific health jurisdiction.

Each one of these governmental communities may have other forms of communities within their jurisdiction, but the public health or health department responsibility is for the total body politic, not for any segment, rich or poor, black or white, urban or rural. Like the physician, we health officers are responsible for all the patient, not just this group or that individual.

Each community is different from every other community as each individual patient is different from his neighbor. It is different in its geography, its roads, its communications, its schools, its churches, its age distribution, its racial distributon, its social and power structures, its customs, its attitudes, its value system, its rates of illness and disease, its facilities to meet the needs. Now as physicians we know that for good scientific practice we should consider each patient as a separate problem. We reject pill peddling, routine prescriptions of castor oil and quinine in the fall and sassafras tea and calomel in the spring. Today we expect the family physician to go through certain procedures to determine as scientifically as he can our individual need before he prescribes and treats us.

The first procedure is to take a history. What is thought of the doctor who does not take a history, does not ask what the patient's trouble is, where his pain is, but just gives him a pill? He is a quack, or if we feel charitable, he is too busy practicing medicine, "but not on us." In looking at our health department, do any or all of the team, that is the "doctor" of the body politic, have a complete history of the patient? Seldom, in a great many studies and surveys of local health departments and other health agencies, have I been able to obtain even an incomplete history of their patient. How many immunizations were done by the health department may be known, but is the percentage of the body politic under age 2 that is protected against diphtheria, whooping cough, tetanus, or smallpox known? Is the percentage of pregnant women who are getting good, adequate medical supervision known? We are full of data upon the indigent, upon this group, upon that group; but a complete history, no! We do not even attempt to make it; we do not have the time.

Vital statistics in our health jurisdiction are only a pitifully small segment of the health history of our patient, but even the vital statistics and the morbidity reports we do not know. It is all there, recorded and filed in the bottom drawer, but it has never been studied and analyzed, put on charts and graphs by age, seasonal distribution, race, or sex. Even this elementary step in the history of the patient is ignored.

We too frequently do not even know what other agencies, public and private, are doing for our patient, our community. Has the patient been asked what he thinks his chief complaint is? Does the patient have a way or means of expressing himself to his physician concerning his health? The patient is all the people, not just the doctors, or the bankers, or the businessmen, or the politicians. We must maintain and develop means of getting grass-root answers, representative community opinion. If we are honest with ourselves, we will admit that a complete history of the health of the body politic is not available in most health departments, and certainly we do not and can not have it at a state or national level when we do not have it at the local level.

The second procedure is a thorough examination of the whole patient. What is thought of the doctor who does not strip the baby for examination? We do not take our children to him. But it is hardly necessary to say that in the health department, we do not examine the whole patient and seldom even a part of him. We have a good excuse: "We haven't time." "It would offend the medical profession" if, for example, we determined the percentage of mothers getting poor prenatal care. So we cannot do that. We are responsible for the health of the body politic, yet we have never once examined the patient completely and thoroughly.

Along with this examination by the physician go certain laboratory tests, the third procedure. Advances

in medical science provide new and essential tests for the individual constantly. This is one of the reasons for the increased cost of medical care. The advances in health science provide for new and essential tests upon the body politic to aid in determining community needs and lacks, a community diagnosis. Special tests on a mass basis are extremely expensive. Ingenuity reduces this expense; for example, the large roentgenogram to the microphotograph, from $10 to 50 cents per person. We have done fairly well with this test, but we still have applied it to only a part of our patient, unfortunately too often the most unlikely part. In many of our communities our mass screening has been directed at the young adult population, 15 to 35 years of age, where pulmonary tuberculosis is at its lowest incidence; and those over 55, who have six times as much active tuberculosis, are missed. Routine screening of all hospital inpatients and outpatients is still not generally done, although this is 10 times as productive a case-finding area as screening industry. We have chosen to screen Negro population in the United States instead of white population despite the known greater incidence rates of active tuberculosis in the white population at any one time. We have concentrated our efforts upon the 10 per cent source of new cases and done nothing about the 90 per cent source of new cases each year in most of our tuberculosis control programs. If the doctor examined the long bones by roentgen ray to discover tuberculosis, it would be more sensible than the mass screening that so often has been done by health departments, apparently avoiding the very segments of the body politic in which the disease is most common and prevalent.

The last procedure of scientific public health is a plan of treatment. We are desperately in need of planning in public health. We are so busy doing the immediate "first aid" that we do not have time to think of the year's program, and particularly the long-range program. The plan of treatment must include continued analysis of the result of present treatment. Here again we tend to set up programs, not because they are calculated to meet our community's needs, but because they are popular or traditional, or money is available. It is dangerous, however, to make plans on insufficient evidence. Scientific planning is not done chiefly because none of the other criteria of scientific public health has been fulfilled. A complete and careful history of the patient has not been obtained. A complete and thorough examination has not been done. Neither have the laboratory and roentgen-ray tests that are available been used. A scientific diagnosis has not been made, let alone written down. A scientific plan of treatment cannot be made, long range or short range.

COMMUNITY APPROACH

As we take our place in the professions of tomorrow, the public health profession must cease to practice empirical, traditional public health or bacterial centered or patient centered medicine and must start building a sound scientific approach to public health. In exactly the same way as medicine has come from its era of empiricism and bacterial centered science, public health may also emerge from empiricism and patient centered science to the scientific professional public health practice. But this can happen only if we limit our effort through our area of professional competence, community health, the diagnosis and the treatment of the body politic.

If we accept this concept of public health, how can we determine whether a specific procedure, immunization, for example, is a public health procedure or medical practice procedure? Let us first consider how to determine whether a specific procedure is a clinical service or a bateriological service. The doctor takes a throat culture for diphtheria. He smears it upon the culture media. He may incubate it and examine it later. He does exactly what the bacteriologist does, but this does not make him a bacteriologist; nor does the same procedure done by a bacteriologist make him a clinician. What determines his profession is not what he does, but why he does it. The purpose of the clinician is the diagnosis of the patient. His focus is upon the total patient. This is his responsibility, his competence, his chief concern. The bacteriologist has a different purpose, the diagnosis of the disease. His focus is the bacterium. This is his responsibility, his competence, and his chief concern. When we in public health immunize a child, we do the same thing as any practicing physcian, but we do not do it for the same reason. The "why" is different. The public health purpose is to raise community immunity. The public health focus is upon the immunity level of the total community. This is public health's responsibility, competence, and chief concern.

There is no conflict between the bacteriologist and the physician, and there need not be between the physician and the public health practitioner if they both understand this "why," our purpose and objective.

With definite understanding of our purpose, much misunderstanding and conflict with organized medicine is eliminated. Our responsibility is not for the individual. We are not practicing medicine, preventive, curative, or any kind, upon individuals. We are not taking practice away from physicians, indigent or nonindigent. This is the private physician's business and responsibility. We are concerned with providing means for community diagnosis, community treatment, and community protection—adequate hospital facilities, nursing, dental, and medical care

through those people and professions best qualified to render this service in the community.

IMPORTANCE OF APPROACH

We should be aware of the importance of this community approach. As we consider the vast improvement in the health of our communities, it becomes evident that the community approach is responsible for all the major successes, conquests, and control of disease of the past. Early diagnosis and treatment of disease, the individual approach to our problem, has done much for individuals in controlling suffering, illness, and death, but it has never eliminated nor controlled disease in communities. Take, for example, malaria, diphtheria, yellow fever, hookworm, typhoid, plague, cholera, smallpox, all the major causes of death 100 years ago. There is no question but that the community approach (primary prevention) is responsible for their eradication or control. Community procedure, not early diagnosis and treatment of cases, has proved successful. Control was accomplished through community procedure in three ways: (1) by controlling the environment—purification of water supplies, mosquito control, rat control, proper disposal of human wastes; (2) by modifying the reaction to the environment—immunization, not of individuals but of communities (diphtheria was never controlled until community immunity was raised to a sufficiently high level in the community); (3) by isolating the environment—quarantine and isolation procedures, emergency and temporary measures that were only partially successful.

If we go more deeply into the epidemiological investigation of other diseases, we find the same thing to be true. Tuberculosis and syphilis, for example, follow the same pattern. There is little evidence that all our early case-finding and treatment procedures have had any significant effect upon the control of these two diseases. If we study communities with and without adequate hospital, medical care, or case-finding programs, there is no correlation, let alone causative correlation, between the falling rates of these diseases and the early case-finding and treatment programs we have been conducting. There is distinct correlation with community factors such as economic status, improved housing, better income, higher living standards. There is correlation with mass prophylaxis, unintentional, but nonetheless real.

It is not my intention to belabor the past, but to look to the future. The major causes of illness, death, and disability today and tomorrow are the chronic diseases—heart disease, mental disease, cancer, accidents, and so forth. Our approach to all these problems to date has been the individual approach, early diagnosis and treatment. There is no evidence from the past that this appoach will or can produce any eradication or control of these diseases. We are whistling in the dark to expect it. Take for example dental caries, an extremely common chronic disease. We have established extensive and expensive preventive dental programs aimed at early diagnosis and treatment of dental caries. This includes bite-wing roentgenograms, DMF (accumulated dental caries experience) rates, regular examinations at 6 month intervals, and correction of defects. These programs have done a lot of good for many individuals in preventing unnecessary tooth loss, pain, and suffering, but what has been the result, the net community result, of all this activity, or lack of it? Has dental caries been reduced? Are dental decay rates falling?

On a recent visit to Finland, I was visiting a public health student whose health jurisdiction was some remote islands in the Baltic Sea with a few thousand population. His wife was a dentist. It was the first time these people had had a resident dentist. This is what she told me. "Since coming here 5 years ago, I have been interested and concerned particularly in children's dentistry, preventive dentistry, and a large part of my practice has been directed at early detection and care of dental caries. I work hard, but there is more dental caries now in children than when I started 5 years ago. I'm losing ground even in the small, static population of these islands."

Unfortunately, this experience is not the exception, but the rule, in Finland and in the United States. Nothing has happened community-wise. If anything, we have more dental caries than ever before. Our dentists are busier than ever before. Control obviously requires that we do something else besides early case finding and treatment. Fluoridation of city water supplies is possible and would cut down dental caries for oncoming generations by a sizable percentage. But not all our cities have fluoridation of their water supply, and if they did, what do we have to offer rural populations with no access to municipal water supplies?

Take another example, mental disease. Have the constantly increasing rates of mental illness and disease been affected in any community by adequate hospitalization, adequate medical and psychiatric care, child guidance, parent guidance clinics and services? The answer is no, and the reason obvious. All of these are individual-centered programs, early case finding and treatment. They are doing a lot of good for individuals, but not controlling the ever increasing amount of the disease in communities. We must find ways through research to attack the problem upon a community basis: (1) by changing the environment or (2) by changing the reaction to the environment. This is not easy, but it is no more difficult than was water purification or immuniza-

tion 100 years ago. Consider for a moment how we have changed the environment, by modern technology and gadgets. Consider our child labor laws. Perhaps we need to provide less recreation for our children and more good hard work. Hard work, physical labor, is one of the most emotionally stabilizing procedures we know. The dignity of work has been lost to our environment for many children. We have overprotected our children. We have isolated them from hard work, conflicts, and emotional stress and strain at the early ages when they might well have been able to adjust normally, and then later in life more and more of them are breaking because they have had no experience with these matters. We are told that during World War II the rates of battle psychosis were tremendously decreased by controlled exposure to live fire before battle conditions. Could not controlled exposure be developed in civilian life? It is not necessary to point out that much controlled research and testing must be done before we can advocate such immunization or changing of the environment for control of mental disease, but it is possible, and only through such community approach will control of mental disease become effective. Only through modifying the environment or reaction to the environment, the community approach, can we hope to control heart disease, cancer, accidents, and all the other major causes of illness and death today and tomorrow.

This new patient, the community, is complex, difficult to understand, hard to diagnose, resistant to treatment. There is much to learn, much we do not know. It is no wonder that community centered, public health science challenges the imagination, calls for pioneers with dedication and consecration, calls for the best brains and minds from medicine and many other disciplines to seek out the new truths so critically important to human welfare. This is our opportunity, our mission, our heritage.

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Group Dental Plans

A new publication, "Digest of Prepaid Dental Care Plans, 1958," describing nearly 100 active group dental care plans and designed to assist professional and lay groups interested in organizing prepayment programs, has been prepared by the Division of Dental Resources of the Public Health Service. Single copies are available on request from the Division of Dental Resources, Public Health Service, United States Department of Health, Education, and Welfare, Washington 25, D. C.

Blue Shield and The Future Of Medicine

A Physician's View

EVERETT C. FOX, M.D.
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THE PHENOMENAL GROWTH of prepaid voluntary health insurance in the past 10 or 15 years is credited by most thoughtful physicians as playing a major role in the preservation of the private practice of medicine as we know it today in the United States. Socialized medicine is an accepted fact of life in most of the rest of the world, and Canada is currently making a giant step in the same direction.

This is no time for physicians to settle back in complacency with the feeling that "it can't happen here" or to become so absorbed in their own practice that they are not aware of how the world is changing around them.

Dr. Everett C. Fox, Dallas dermatologist, formerly was chairman of the Texas Medical Association's Council on Medical Economics.

The growth of prepaid voluntary health insurance has played a major role in the preservation of private medical practice. The threat to private practice continues and must be met by constructive thinking and action by individual physicians. Support of, careful use of, and dissemination of information about such plans as Blue Shield will help in the fight.

On one side we are threatened by state and federal programs operating on a large scale and pressing for still further enlargement. The Medicare program is an example of recent, accomplished government encroachment on the private practice of medicine, and the Forand bill is an example of further threatened encroachment, which could easily become an accomplished fact. On the other side, there is growing pressure for domination of the practice of medicine by labor unions and by some consumer cooperatives and the strong possibility of dictation from commercial interests.

The problem is aggravated, if not largely created, by the constant increase in health care costs for which labor must accept a major responsibility in its constant drive for higher wages in all segments of our economy. The increase in the doctors' share of the total health care bill has been moderate when compared with the increase in hospital costs; but 60 to 70 per cent of the hospitals' operating costs go to pay salaries. Most physicians are in a position to realize that a sizable portion of the increase in hospital costs lies in new drugs and equipment and in the development of new life-saving techniques which make hospital care in this country today the world's greatest bargain in the health field. This fact, however, is not apparent to the lay public, and laymen constitute a majority of the voters.

Most doctors are aware of the extent to which public opinion is hostile to the medical profession. The family doctor may be a hero to the family he treats, but the same family is likely to think of the medical profession as a whole as reactionary, "against everything," and a stumbling block in the wheels of progress. Need I add that this feeling is constantly encouraged by the socializers and the demagogues who want to offer life and health at bargain rates and at the taxpayers' expense.

POSITIVE ACTION

What, then, is a busy practicing physician to do? What can he do personally to stem the onrushing tide which is about to engulf his profession and drown it in a sea of government regulations and paper work?

First, I think every physician must resolve that he will devote some time and thought to the problem (a great deal of time is not required, but a lot of constructive thinking is badly needed).

Second, I think that physicians must do their utmost to present a united front in opposition to the things which the medical profession can not accept and in active support of the things in which the medical profession strongly believes. Socialized medicine has been the result in every country where the medical profession was divided and could not agree on what action to take.

Third, I believe the medical profession must come up with some positive answers. Some of the accusations of a purely negative attitude have been true, at least enough of them that our future program must place its emphasis on the positive side.

Fortunately for us, one positive answer has acquired stature and public acceptance in recent years and with our help it can do an even better job. I am referring, of course, to Blue Shield and more specifically to Texas Blue Shield. On June 1, 1958, there were 1,083,677 Texans enrolled in Blue Shield and 1,154,834 enrolled in Texas Blue Cross, the companion plan for hospital care. Much of this total enrollment was obtained with comparatively little or no help from individual physicians. How much greater this growth might have been with real, active encouragement and understanding by physicians can not be determined; but surely future growth can be greatly enhanced by the active interest and participation of Texas physicians. The new 200, 300, and 400 services offer increased benefits for hospital services, and on the Blue Shield side certain diagnostic x-ray and laboratory benefits for services in the doctors' offices as well as increased medical benefits in the hospital for cases not requiring surgery. The new 200-300 services are currently being offered to individuals and families who apply for nongroup membership, as well as to most groups.

Why should we help? First, from enlightened self interest, if for no other reason. Our collection problems for major illnesses are minimal today largely because of prepaid health insurance. Second, because Texas Blue Shield and Blue Cross are doing and have done an outstanding job in the field of voluntary prepayment plans. They have set the pattern which commercial companies have tried to meet. Third, they are nonprofit plans, and the public, our patients, are the beneficiaries of the savings this has created. (In 1957 more than 90 per cent of the income received by Texas Blue Cross-Blue Shield was available for patient benefits and more than 86 per cent was so used.) And fourth, but not least, the medical profession, through the physician members of the board of directors of Blue Shield, has a strong voice in establishing policy and planning the future development of the plan.

A vivid demonstration of how a nonprofit plan works for the public was given in 1954, when Texas Blue Shield and Blue Cross added cancer to the diseases covered by the broad $5,000 benefit C.I.E. (Catastrophic Illness Endorsement) rider. It had previously covered polio, meningitis, encephalitis, and a total of 10 so-called dread diseases. With the decline of polio, funds had accumulated even at the low cost of 40 cents monthly for an individual and 80 cents monthly per family.

In adding cancer to this broad benefit program which pays all the hospital bill and all the doctor's bill as well as special nursing fees and drugs and treatment at home within the $5,000 maximum, Texas Blue Shield and Blue Cross were pioneering in a very real way. That the cost has had to go up to 75 cents for an individual and $1.50 per month for a family should surprise no one. Cancer now uses 86.7 per cent of the total paid for Texas members for this special protection. Last year $3,336,357.29 was paid to doctors and hospitals for care under this special rider for the 855,753 Texans having this special protection.

It is no wonder, in my opinion, that those concerned with plan management, as well as plan directors and officials of the Texas Medical Association, have been concerned with the problem of exorbitant fees charged by a small minority of physicians who charge such fees when they have treated a patient with this special broad protection. Even more dangerous is the tendency of many more doctors to add a little to what otherwise would be their regular fee if the case comes under this special C.I.E. coverage.

With the public's present concern with the high cost of health care in general and the constantly rising cost of prepaid health care in particular, this kind of activity threatens to wreck the magnificent job of protection that Texas Blue Shield and Blue Cross have done in this field for almost 4 years. Whether people in Texas can get this kind of protection in 1959, 1960, and years to come depends on what you and I do in our offices today and tomorrow. We must not look at patients with this special protection as we might regard some of our wealthy patients. Nearly all of them are in the lower income bracket and would not have been able to pay even an average fee if they had not had the foresight to provide themselves with this special protection.

The time has come when we must stop focusing so much of our time and attention on individual case problems of our own patients. It is time to raise our sights to the larger significance of the job which Blue Shield is doing for the public we serve and to realize that we must stand behind the policies and aims of Blue Shield and Blue Cross in their determination to offer the public prepaid voluntary health insurance at a cost which they can and will pay. We must devote ourselves equally to finding ways and means of keeping costs within the ability of the public to pay so that they will not turn to government as the only answer. We somehow must find ways to inform our patients and the general public that the increase in costs of physicians' services since 1937 is only a minor part of the increase of over-all medical care costs, which in turn have not increased in proportion to the increase of consumers' disposable income. Physicians must realize that if the government is to provide all or most medical care and hospitalization, an entire reorganization of medical practice will be necessary. The public, in turn, must be informed of the likely changes in kind and quality of care that will result if government takes over. These are some of the ways the medical profession can help in order to have at least a fighting chance of preserving the private practice of medicine.

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Cerebral Angiography

Clinical Experience with Comparative Contrast Media

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IT IS THE PURPOSE of this communication to summarize our cerebral angiographic experiences using three contrast materials. Until 1956 Diodrast in 35 per cent solution was used exclusively. Hypaque (50 per cent) and, more recently, Renografin (60 per cent) have been made available. This study of approximately 250 cases attempts to evaluate (1) the excellence of the media radiographically and (2) the clinical safety of the materials used.

Objection has been found to many of the contrast media employed, principally on a clinical basis. Egas Monez[7] in 1927 abandoned sodium iodide in favor of Thorotrast, and although this material was generally considered safe within the vascular structures intracranially, severe periarterial reactions at the site of injection were not infrequently encountered.[1, 5] Diodrast has been shown to produce temporary damage to the blood-brain barrier in acute experiments of Broman and Olsson[2] while Foltz and others[3] showed, by direct cortical visualization, severe vasospasm of pial arterioles after Diodrast injection.

Dr. Ralph A. Munslow and his co-authors presented this paper for the Section on Radiology at the Texas Medical Association annual session April 21, 1958, in Houston.

The contrast media Renografin and Hypaque appear relatively safer than Diodrast and produce superior angiograms, experience with approximately 250 cerebral angiographic studies indicates.

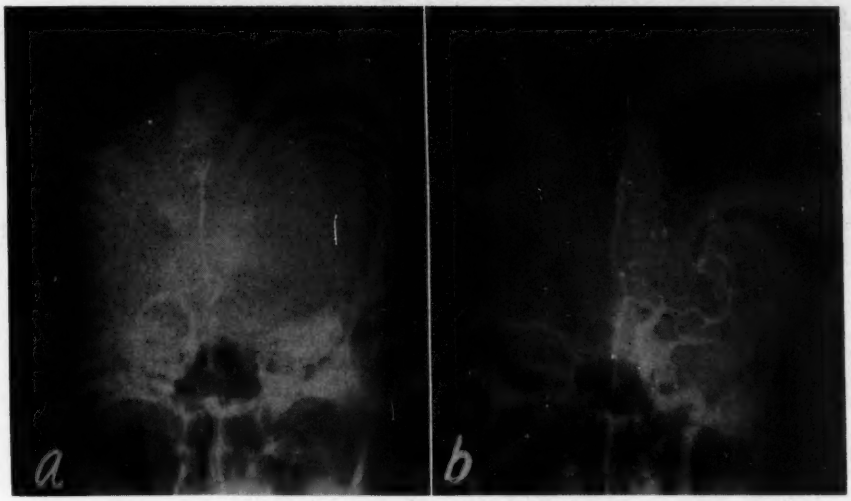

Fig. 1. Comparative (a) Diodrast injections and (b) Hypaque injections.

More recently, Margolis and associates[4, 6] have attempted a quantitative evaluation of pathology attributable to various media using as subject material the spinal cord of a dog. By these more chronic experiments not only can the immediate toxic effects but also late evidence of cord damage on extended survival animals be studied. The results of these experiments show Hypaque and Renografin to be least toxic, followed by Diodrast and Miokon in an intermediate position, while Urokon was by far the most toxic medium tested.

Examinations are routinely carried out under light Pentothal anesthesia and without preliminary stellate ganglion block or intravenous Novocain administration. Injection into the carotid artery is made percutaneously, a series of rapid roentgen-ray exposures using a Universal type cassette changer then being made. Anteroposterior and lateral views are always made, augmented when necessary by oblique projections and transorbital or other special views. The average volume of Renografin injected into each patient approximates 30 cc. for bilateral study although in certain instances up to 75 cc. have been used without serious complication. When a major vessel fails to fill and we are unable to differentiate between occlusion and spasm, repeat injections are made using intra-arterial papaverine prior to the reinjection of the opaque medium. Figure 1a, typical

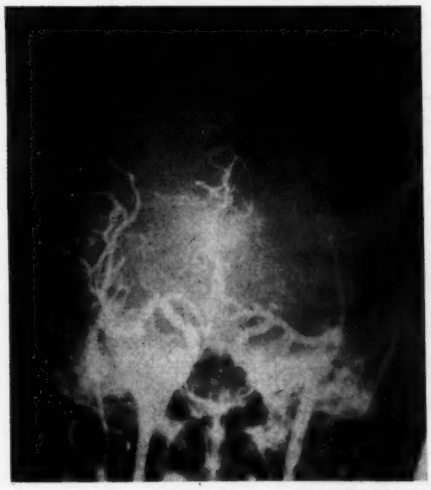

Fig. 2. Bilateral simultaneous carotid injections using Renografin on the right and Hypaque on the left.

Fig. 3. Arteriogram demonstrating subdural hematoma, using Renografin.

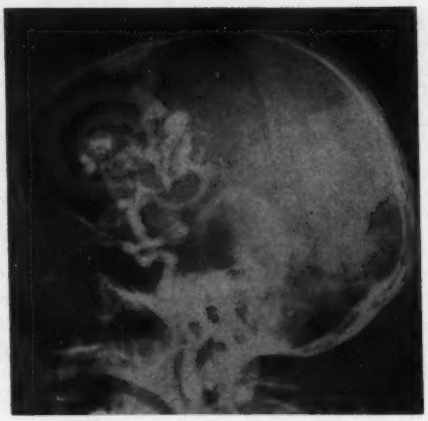

Fig. 4. Arteriogram demonstrating arteriovenous malformation, using Renografin.

of the quality of plates using Diodrast, can be compared with figure 1b, where Hypaque was used as a contrast medium. Figure 2 represents a bilateral simultaneous injection of dye, Hypaque being injected into the left carotid artery and Renografin into the similar vessel on the right. Figures 3 through 6 represent several types of lesions capable of demonstration by angiography using Renografin.

Though we have had no clinical experience with either Urokon or Miokon, there have been fewer complications with the more recent use of Hypaque and Renografin than with Diodrast. Using Diodrast, 1 death and 3 instances of hemiparesis and/or aphasia of a permanent nature in 100 cases were

Fig. 5. Arteriogram demonstrating arterial distortion with temporal lobe tumor, using Renografin.

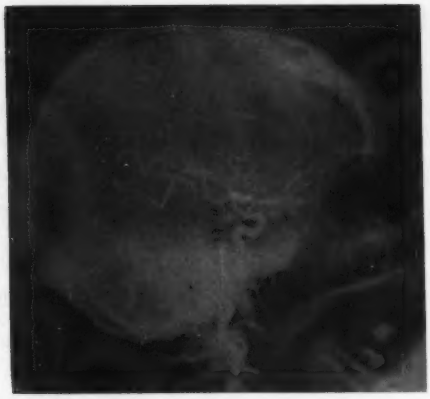

Fig. 6. Arteriogram demonstrating arterial aneurysm of the internal carotid artery, using Renografin.

found. This prompted us to select air study over angiography in brain tumor suspects or other questionable intracranial conditions in which the vascular system did not seem primarily implicated. By contrast no permanent neurologic sequelae and but 4 instances of transient paresis have followed angiographic study in 150 cases using Hypaque or Renografin. In at least 2 of these instances a small air embolus in the injection system rather than the radiographic material should be incriminated, the hemiparesis having occurred on the side opposite injection in these bilateral studies. In contrast to transient erythema consistently noted within the domain of the external carotid circulation of the side injected with Diodrast, little or no similar reaction follows Hypaque or Renografin administration. When contrast material on occasions has been injected inadvertently outside the lumen of the carotid, no local reaction and little pain is noted using Hypaque or Renografin.

SUMMARY

Clinical experience with approximately 250 angiographic studies seems to indicate that Renografin cr Hypaque is relatively safer than Diodrast and also produces superior angiograms when these materials are compared in cerebral angiography.

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CASE REPORTS

Tuboplasty

Report of 8 Cases With 8 Living Babies

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THE HISTORY of attempts surgically to correct occluded fallopian tubes is indeed clouded with pessimism. A generation of gynecologists has passed with little effort to reinvestigate this subject, mainly because of poor operative results obtained by our elders.[2] These results were mainly due to the inability to control infection and its sequelae, poor materials with which to work, and above all, poor diagnostic methods with which to select cases. Greenhill[2] found only 54 pregnancies in 818 collected tubal operations, or 1 pregnancy in 15 operations, which is 6.6 per cent. Out of this number of pregnancies, only 1 in 22.5 produced live babies (4.4 per cent). Twenty years later, he collected other cases which revealed 1 pregnancy out of 5 operations, 77.3 per cent of which resulted in live births.[3]

Siegler and Hellman[4] conducted a worldwide survey in 1956 and collected a total of 2,285 tubal plastic operations in which there were 378 live births, or a rate of 16.5 per cent. The total pregnancy rate was 22.5 per cent with 26.3 per cent of the pregnancies being lost in either ectopic implantations, abortions, or stillbirths.

These results seem encouraging even when it is considered that they were collected cases and done under many varying diagnostic and technical circumstances. However, when we consider the tremendous importance of these children to themselves and their respective communities, and of the child to otherwise childless parents, it brings hope for renewed efforts toward improvement in this field. Since we can now reassure these childless women of comparative surgical safety and improved chances of success, they are often willing to undergo surgical correction for their sterility.

SELECTION OF CASES

Experience and skill in this type of surgery is of the utmost importance. Primary operative failures have the same relationship in tuboplastic procedures as in primary failures with vesicovaginal fistulas, in that the first surgeon has the best chance at success. The importance of normal tissues can not be overly emphasized, and in general the more normal tissue present, the greater the chance at restoration and subsequent pregnancy.

Approximately 30 per cent of sterility cases are due to tubal occlusions.[4] Therefore, it is important to determine the cause of the sterility before surgery is contemplated.

The pelvic inflammations comprise the most important group to be reckoned with. Salpingitis resulting from surface spreading infection such as that from the Neisseria organism with its mucosal destructive effect is the most hopeless type of case. The primary infection frequently develops into the "sequelae" or "complications" which result in tuboovarian abscesses, pelvic peritonitis, and eventually massive tissue destruction. This certainly is hopeless

Dr. William R. Knight, III, from the Department of Obstetrics and Gynecology, Baylor University College of Medicine, presented this paper before the Section on Obstetrics and Gynecology at the Texas Medical Association annual session in Houston, April 21, 1958.

Approximately 30 per cent of sterility cases are due to tubal occlusions. Some of these cases, carefully evaluated as to probable success, lend themselves to surgical correction. In this series of 8 tuboplasties, from which 5 patients subsequently became pregnant and delivered a total of 8 living babies, fimbrial occlusion from inflammation was the most common problem.

as far as surgical correction is concerned because of the absence of normal tissues with which to work. However, this sequence of events does not always follow when early intervention with antibiotic therapy is undertaken. Therefore diagnostic evaluation of the case will soon reveal the efficacy of any corrective treatment.

With perisalpingitis there is often quite a different sequence of events. Streptococcal infections spread along lymphatic channels and do not usually cause tissue destruction of the mucosa except in advanced disease. Here we often find the fimbria closed or adherent to the ovary. It is evident that early diagnosis and treatment may arrest this process anywhere along the way, and comparatively minor degrees of occlusion will be found, such as a dilated tube with a closed fimbria, but with comparatively normal mucosa and a functioning muscularis remaining. It is generally agreed that a fallopian tube has a function other than merely being a "pipe to transmit a fertilized ovum," and this is believed to be one of the best arguments against "substitute" tubes.

Perioophoritis must be considered, and if the tunica albuginica has become thickened by repeated organizations of fibrinous exudates causing a tough thick capsule, it is of little value to propose surgery for relief of sterility. Definite evidence of ovulation and normal ovarian function must be present. Therefore, this seems to be the best place to emphasize the importance of proper case selection. It is my opinion that too much emphasis has been placed on major reconstructive tubal procedures when it has been my experience that the cases most in evidence and the ones which lend themselves best to surgical correction are the simple fimbriolysis and fimbrioplastic procedures. These procedures are followed more frequently by successful pregnancy[6] than are cases of tubal anastomosis or cornuplasty.

Ruptured appendix in girlhood or young womanhood is frequently followed by sterility resulting from tubal occlusion. This type of infection may produce pelvic peritonitis with resulting "veils" or "pockets" surrounding the fimbriated end of the tube, or abnormalities of the fimbria. Hysterosalpingogram may reveal a "pooling" of the medium in the region of the ovary and at first will appear to show a patent tube; however, the 24 hour film will fail to reveal any free dye in the pelvic cavity. This type of case will lend itself to easy surgical correction and frequently without the use of polyethylene splinting. Postabortal endometritis following curettage, even associated with early antibiotic therapy, frequently will involve and result in tubal occlusion. These occlusions are usually found just distal to the cornu.[1] We must consider the infectious group, therefore, as those cases with occlusion due to mucous membrane destruction and those cases with occlusion but without mucous membrane destruction before a just decision as to operative correction can be reached. The silent process, salpingitis isthmica nodosum, undoubtedly is a more frequent offender than usually considered, but it has the characteristic of only one tube being involved and therefore usually presents no sterility problem.

The destructive phase of pelvic and ovarian endometriosis with tissue destruction is not an uncommon cause of sterility, but in this instance tubal occlusion is not the only factor involved.

The occlusions due to previous sterilization procedures include the Pomeroy, Irving, Madliner, Cooke, and cornual excisions. The latter of course excludes itself. The Pomeroy lends itself best to tubal anastomosis as it involves the midportion of the fallopian tube at a point where it is easily worked with, and most of all, it is normal tissue.

DIAGNOSTIC PROCEDURES

The general clinical work-up for proposed tuboplastic procedures should be the same as in any sterility problem, even in cases for anastomosis of previous elective tubal sterilizations. A good history and general physical examination for evaluation is the place to begin. Temperature graph, cervical "fern" smears, and endometrial biopsy should be obtained for proof of ovulation. Metabolism determinations with either basal metabolic rates or protein bound iodine determinations should be done, and even minor infractions should be corrected. A sperm count should be performed on the husband early in the study. Rubin's test followed by hysterosalpingograms should be done in every instance. In most instances the latter is the key to decision as to whether to operate. There must be relative proof that there is no active infection present before a decision to perform surgery is made. The white blood count, temperature, and sedimentation rate should be normal.

Ethiodol was used for hysterosalpingography in most of the cases reported here, with fluoroscopy followed by stereoscopic films. A 24 hour film should be made of the pelvis to confirm the fluoroscopic and radiographic findings. These procedures best of all outline the area of obstruction. A Rubin's test reveals only patency or obstruction. A hysterosalpingogram tells the location of the obstruction, whether unilateral or bilateral, and also shows congenital anomalies. Postoperative hysterosalpingography may not be necessary. Usually, if the Rubin's test demonstrates patency, no further procedure is needed unless for research purposes. A postoperative Rubin's test is advised at regular intervals of 2 to 4 weeks to maintain patency.

The aforementioned diagnostic procedures should be explained to the patient and her husband, and the reasons given as to why an operative procedure can be recommended. It should be explained definitely to both that operative tubal procedures, even though associated with a low mortality and morbidity, may not carry a good pregnancy success rate.

It should be pointed out clearly again that the major destructive processes involving the fallopian tubes are associated with practically no operative success.

The greatest place for the physician to render a service is to discover by careful diagnosis the cases of simple obstructions and essentially normal tissues, as normal tubal mucosa and muscularis, which offer a reasonable chance for surgical correction. The cases presented here are thought to represent such an approach, and I believe accounts for the reasonable success of 5 of the 8 patients conceiving and delivering 8 normal children.

CASE PRESENTATIONS

The following case reports are used to illustrate conservative case selection for operative reconstruction of the fallopian tubes.

CASE 1.—Mrs. F. G., para 0-0-0-0, illustrates perisalpingitis with closure of fimbria, followed by secondary hydrosalpinx. This patient was a 25 year old woman, married for 5 years, who had had a ruptured appendix at 15 years of age which was followed by peritonitis, pelvic abscesses, and intestinal obstruction. These complications were treated by primary and secondary operations, stab wound drainage of the pelvis, and multiple blood transfusions. Preoperative investigation revealed a left ovarian cyst and multiple scars of the abdomen; a hysterosalpingogram (fig. 1) showed dilated tubes patent to the fimbria and partially filling the ovarian cyst.

Operation in 1954 revealed an 8 cm. left ovarian cyst of postinflammatory type with a thickened tunica albuginea. There was perisalpingitis with bilaterally closed fimbriae and old pelvic peritonitis with multiple adhesions. The right ovary was normal. Operation consisted of release of multiple adhesions, left oophorocystectomy, and bilateral fimbrioplasty, accomplished by rolling the fimbriated end back on the ampulla and suturing in place. Two normal pregnancies and deliveries have followed.

Fig. 1. Case 1. Hysterosalpingogram showing dilated tubes patent to the fimbria and partially filling an ovarian cyst.

Fig. 2. Case 2. Hysterosalpingogram showing the right tube closed just distal to the cornu and the left closed at the fimbria.

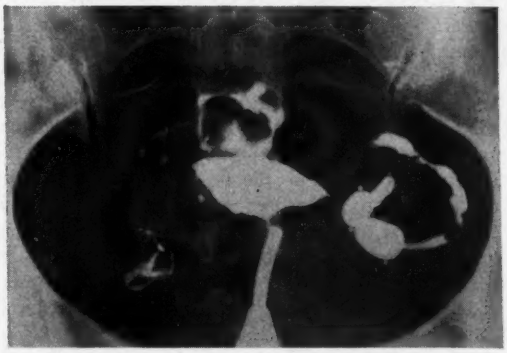

Fig. 3. Case 3. Hysterosalpingogram made August 15, 1956, revealing partial patency on the right with the contrast material in the left tube remaining localized in the region of a mass in the adnexa.

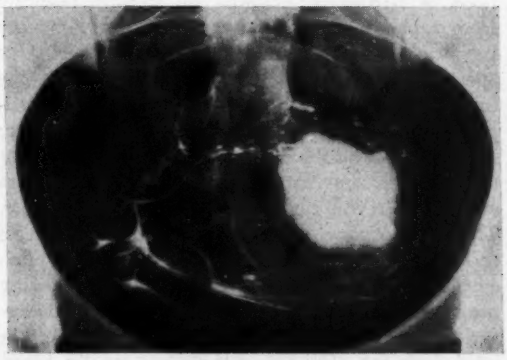

Fig. 4. Case 3. A repeat hysterosalpingogram made September 3, 1956, showing the left tube communicating with a well defined cystic mass.

CASE 2.—Mrs. R. L., aged 34, para 1-0-0-1, with one child experienced sterility following a postpartum infection 13 years previously. Pelvic findings were an 8 cm. right inflammatory ovarian cyst without evidence of active infection. Hysterosalpingogram (fig. 2) showed the right tube closed just distal to the cornu, suggesting salpingitis isthmica nodosa. The left was closed at the fimbria.

Operation in 1957 revealed a right inflammatory tuboovarian mass of 8 cm. The left tube was closed at the fimbria and adherent to the ovary. The left ovary was normal. It was surgically impossible to salvage the right tube so a right salpingo-oophorectomy was done. A fimbrioplasty was done successfully on the left; this has remained patent, but no pregnancy has occurred.

CASE 3.—Mrs. M. T., aged 29 years, para 0-0-0-0, married 8½ years with no pregnancies, was found to have a 6 cm. mass in the left adnexa which was adherent to the uterus and the posterior leaf of the broad ligament. The pelvis was otherwise normal. Hysterosalpingogram made August 15, 1956 (fig. 3) revealed partial patency on the right side with the contrast material in the left tube remaining localized in the region of the described mass. A repeat film September 3 (fig. 4) showed the left tube communicating with a well defined cystic mass, 5 to 6 cm. in diameter. It was reasoned that the right side was partially obstructed from adhesions or veils, which may have accounted for the sterility.

Operation in 1957 terminated in a left salpingo-oophorectomy which was an old inflammatory process. The right fimbria was deformed with inflammatory type of adhesions. A fimbriolysis was done on the right, which remained patent, and the patient conceived and delivered a normal child in 1957.

CASE 4.—Mrs. W. B., aged 32, para 2-0-0-2, with two previous deliveries by cesarean section, had had an elective Irving tubal sterilization following the second section. Because of the sudden tragic death of her second child, she sought reconstruction of her fallopian tubes. Pelvic examination was normal. Hysterosalpingograms revealed a nodular deformity of the right cornual and isthmic portions of the tube consistent with salpingitis isthmica nodosum (fig. 5).

At operation on June 14, 1954, the right tube was difficult to catheterize at the isthmus. Anastomosis over polyethylene plastic tubing was carried out bilaterally. The nodular area of the right tube was subjected to biopsy with a pathological report of salpingitis isthmica nodosa. Much pain from tubal spasm was experienced, and the polyethylene splint on the right side was spontaneously delivered in the postoperative period. Patency was obtained on the left (fig. 6). Six adoptions have been made, but no pregnancy has occurred.

CASE 5.—Mrs. E. H., aged 32 years, para 0-0-0-0, at the age of 17 years developed acute appendicitis and was operated on for it. The discovery of a uterus didelphis with a complete vaginal septum prompted an ill advised attempt to correct this by excising the vaginal septum, the cervical septum, and amputation of one fundus with attempted cornual transplantation. After 7 years of marriage, the patient accepted her sterility as uncorrectable. Examination revealed remnants of a vaginal septum and a double cervix with a reformed cervical septum. The uterus felt smaller than normal. Rubin's test indicated no patency. Hysterosalpingograms revealed a deformed dome shaped uterus with no visible patency at the cornu. There was a septum in the uterus, which was demonstrated by inserting the cannula in turn through each cervix (fig. 7).

At operation on July 27, 1954, a bilateral cornual transplant over polyethylene tubing was done through an incision across the fundus posterior to the cornual area. Only the ampullary and fimbriated ends of the tubes were patent; however, they were normal tissues. The remainder were reduced to fibrous cords from ischemia. Patency was obtained on the left (fig. 8).

The patient became pregnant, and progressed uneventfully until 30 weeks of gestation, at which time prema-

Fig. 5. Case 4. Hysterosalpingogram showing a nodular deformity of the right cornual and isthmic portions of the tube.

Fig. 6. Case 4. Hysterosalpingograms following bilateral anastomosis of the tubes and showing patency on the left.

ture spontaneous rupture of the membranes occurred, followed by partial separation of the placenta and premature labor. She was delivered of a 4 pound 15 ounce infant which survived for 7 weeks and died of meningitis in a hospital nursery. The third stage was complicated by profuse hemorrhage from the placental attachment, which was implanted over the unremoved uterine septum. The patient became pregnant again and after an uneventful pregnancy was delivered in early labor by cesarean section at 37½ weeks' gestation, of a living term sized infant. At this section, the remaining uterine septum was removed without event.

CASE 6.—Mrs. D. R., aged 27 years, para 0-0-0-0, had a history of ruptured appendix in girlhood followed by peritonitis and subsequently after marriage, 7 years of sterility. A dilatation and curettement was done in 1952 for a questionable incomplete abortion, and again in 1953 for endometrial hyperplasia. There was an asymptomatic third degree retroversion of the uterus on pelvic examination. Rubin's test was normal with auscultation of the gas on the left. Hysterosalpingogram and fluoroscopy revealed occlusions of the right tube just distal to the cornu (fig. 9). The left was apparently normal. Because of the long history of sterility, history of ruptured appendix followed by peritonitis, curettement, occlusion of one tube, and otherwise normal studies, it was thought advisable to perform an exploratory laparotomy.

Operation revealed occlusion of the isthmic portion of the right tube, thought at surgery to be the result of salpingitis isthmica nodosum. The pathological sections indicated chronic salpingitis. The fimbriae were normal. The proximal portion of the tube could not be catheterized to perform anastomosis over a polyethylene splint. A cornuplasty was done even though the left tube was thought to be normal. The uterus was suspended. This cornuplasty was of questionable judgment, but has remained patent. Pregnancy has not occurred.

CASE 7.—Mrs. J. D. H., aged 24 years, para 0-2-0-1, had her first pregnancy terminated by induction of premature labor because of severe preeclampsia. Her second pregnancy ended with a fetal death in utero, which was said to be a complication of preeclampsia. Because of recurrent right lower quadrant pain and fever, necessitating an extensive medical work-up, she was referred for evaluation of "chronic appendicitis." Pelvic examination revealed a fixed retroverted and retroflexed uterus, with prolapse of the ovaries into the cul de sac, and adnexal tenderness without induration. There was a Trichomonas vaginalis vaginitis and scattered condylomata acuminata. Tubal patency was not questioned because the patient at the time was unmarried.

At laparotomy in 1955, there were multiple adhesions with the uterus being bound down to the cul de sac, and both fallopian tubes were adherent to the posterior leaf of the broad ligament. The right fimbria was in a pocket of adhesions. The left fimbria was occluded. A right fimbriolysis and left fimbrioplasty was accomplished. The uterus was dissected free and suspended by a Crossen-Gillian suspension.

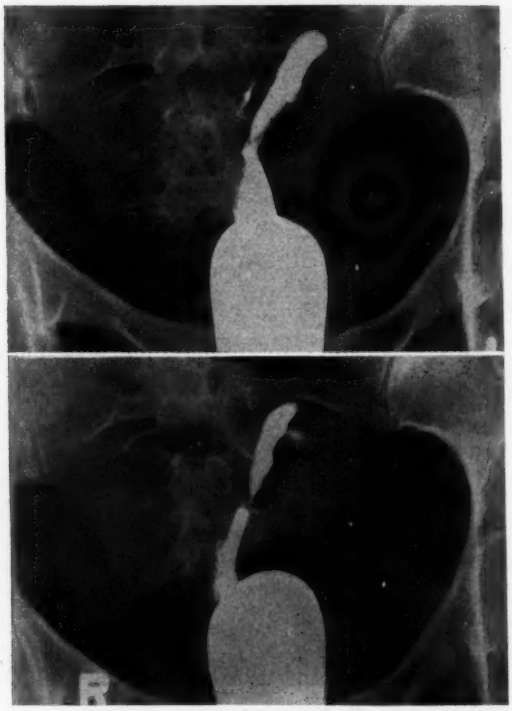

Fig. 7. Case 5. Hysterosalpingograms demonstrating a septum in the uterus.

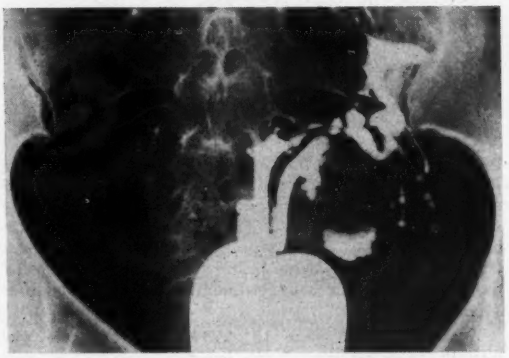

Fig. 8. Case 5. Patency evident on the left after a bilateral cornual transplant.

Fig. 9. Case 6. Hysterosalpingogram showing occlusions of the right tube just distal to the cornu.

TABLE 1.—*Results of Operations for Correction of Occlusion of Fallopian Tubes.*
(Survey of 84 surgeons performing 10 or more operations each.)

Procedure	No. Surgeons	No. Operations	Outcome of Pregnancy				Total Pregnancies
			Ectopic	Abortion	Stillbirth	Live Birth	
Salpingolysis	68	931	20 (7.3%)	38 (14.2%)	0	212 (78.5%)	270 (24%)
Salpingostomy fimbria	72	891	22 (12.0%)	21 (11.8%)	7 (3.7%)	134 (72.5%)	184 (20.3%)
Resection and anastomosis	53	191	1 (6.6%)	5 (33.0%)	1 (6.6%)	8 (53.8%)	15 (7.8%)
Tubal implantation	51	272	4 (9.2%)	15 (34.0%)	1 (2.3%)	24 (54.5%)	44 (26.0%)

Combination of tables 3, 4, 5, and 6, Siegler, A. M., and Hellman, L. M.: Tubal Plastic Surgery; Report of Survey, Fertil. & Steril. 7:170-177 (March-April) 1956.

The patient remarried in 1957 and promptly became pregnant. She was discovered to be Rh negative and isoimmunized to the D factor; however, pregnancy terminated uneventfully in a term Rh negative infant.

CASE 8.—Mrs. M. P., aged 33 years, para 1-0-0-1, developed vaginal spotting, a pelvic mass, pain, and a hemoperitoneum. A diagnosis of ruptured ectopic pregnancy was made. On laparotomy, 400 cc. of blood was found in the peritoneal cavity. A ruptured 8 cm. ovarian mass was found on the left side with both fimbriated ends of the fallopian tubes densely adherent to the ovaries. A left oophorocystectomy and a bilateral fimbrioplasty was done. Recovery was uneventful, patency was obtained, and the patient has since had two normal pregnancies and deliveries.

DISCUSSION

The reporting of a small number of cases has no statistical value; however, the emphasis has been placed on careful case selection for remedial surgery for the relief of sterility in tubal occlusion. The most commonly encountered cases which are surgically correctable will lend themselves to fimbrioplasties or fimbriolysis. These result in the highest percentage of subsequent successful pregnancies.[6] Resection anastomoses result in the poorest (table 1). This seems contrary to what should be expected, since most resection anastomoses are done on normal tubes which previously have been ligated electively. According to Hellman's collected cases, cornual transplants are followed by more pregnancies than resection anastomoses, on the basis of 26 per cent to 7.8 per cent respectively.[6] Perhaps better techniques will improve this situation.

Surgical technique is of the utmost importance in this type of surgery. Rough handling of the tubal tissues with large instruments or the gloved hand may traumatize the serosal and mucosal surfaces sufficiently to cause necrosis and adhesions. Fine incorporated suture material, such as 5-0 and 8-0 ophthalmic, are necessary. Ophthalmic surgical instruments also are used. Careful hemostasis is necessary for success. It has been pointed out already that the greatest care should be exercised to attain success with the first operation, as the best chance of success is with the first attempt. All associated lesions should be carefully appraised before any method of tubal reconstruction is decided upon.

The proper use of splint materials such as extrusion process polyethylene tubing will increase operative success. It is thought that splints always should be used in anastomoses and cornuplasty cases. It is rarely needed in salpingolysis and salpingoplasty cases. Hoods of sheet polyethylene have been used successfully to prevent adhesions of the fimbriae during recovery, but require secondary operations for removal.[5] Polyethylene causes no tissue reaction whatsoever. The brown colored polyethylene, which contains dicetyl phosphate and does cause tissue reaction, should never be used.

Fixation of the ends of the splints have caused much thought, and actually almost every conceivable method has been reported. The loop method, using one continuous tubing through both tubes across the cul de sac and leading out through the cervix, is favored if both tubes are to be splinted. Otherwise it is necessary to suture the proximal end intraperitoneally or bring it out through the skin of the abdominal wall. This latter method is not favored. Experience has taught the tremendous peristaltic action of the fallopian tube toward the splint, and this is the major source of postoperative pain. This force can easily evulse the sutured proximal end and deliver the splint vaginally.

Wide incision of the fundus uterus with the loose suturing of the fallopian tube segment into it is the best method of cornual transplant. Great care should be exercised to have a free swinging pedicle of

TABLE 2.—*Reasons for Tuboplasty in 8 Cases.*

Reasons for Surgery	No. Cases
Salpingitis, nonspecific	2
Salpingitis, postpartum	3
Salpingitis, peri-	1
Salpingitis isthmica nodosum	2*
Didelphis, uteri, operative failure	1
Total	8

Six occlusions due to infections.
*One case with two conditions.

TABLE 3.—*Summary of 8 Cases of Tuboplasty.*

Patient	No. Operations	No. with Pregnancies	Ectopic	Abortion	Stillbirth	Live Birth	Total Pregnancies	Fimbrio-plasty	Cornu-plasty	Anastomosis	Fimbrio-lysis	Tubal Patency
1	1	1	0	0	0	2	2	1				1
2	1	0	0	0	0	0	0	1				1
3	1	1	0	0	0	1	1	1			1	1
4	1	0	0	0	0	0	0			1		1
5	1	1	0	0	0	2	2		1			1
6	1	0	0	0	0	0	0		1			1
*7	1	1	0	0	0	1	1	1			1	1
8	1	1	0	0	0	2	2	1				1
Total	8	5	0	0	0	8	8	5	2	1	2	8

*Rh negative, isoimmunized

mesosalpinx before the tube is transplanted. If there is any circulatory embarrassment, it should be evident if a few minutes are allowed before transplant is attempted. The flap method of suturing the tube to the endometrium as in transplanting a ureter to the bladder is favored. The trephine and burrowing method of cornuplasty is to be condemned because of the constriction of the myometrium around the tube, causing ischemia and the lack of fixation of the tube to the endometrial cavity. Patency of the tubes can be tested at operation with saline solution. Air can be dangerous, and probing is thought to be traumatic. Cornual transplants at the site of the old tubal entry should not be performed because of latent infection and increased tendency toward fibrosis. The proliferative effect of estrogens on the endometrium and tubal mucosa as a postoperative measure has been advocated and seems sound. Antibiotics reduce the incidence of postoperative infection, and consequently lessens the occurrence of adhesions and subsequent failure. This has overcome one of the greatest hazards in tuboplasty. The tubal splints should not be removed before 6 to 8 weeks in order for complete healing and reestablishment of mucosal continuity to take place, and of course, they should not be pulled out during the menses. Sealing of the open end of the splint by clamping or heating prevents reflux from the contaminated vaginal secretions. Salpingograms or Rubin's test should be avoided until absence of infection is established.

Complications have been few in the 8 cases reported here. There was no morbidity or mortality, and the average hospitalization in days was 8.6 (maximum 10, minimum 7). One patient was given a blood transfusion, and 7 had antibiotic therapy for an average of 6 days. In all cases in which splints were used oral antibiotics were continued postoperatively for varying periods. Ectopic pregnancy has occurred in about 10 per cent of cases treated surgically for tubal occlusion, and early abortion in 15.4 per cent.[6] Hellman has expressed the belief that this latter incidence is unrelated to the operation since the standard abortion rate is 10 per cent.

Six of the 8 cases reported here were of occlusions due to infection. Two were due to salpingitis isthmica nodosum, and 1 to previous operative failure in a congenital defect (table 2). Of the 8 patients operated on, 5 subsequently became pregnant, with a total of 8 pregnancies and 8 live births. Only 1 patient was delivered by cesarean section. There were no ectopic pregnancies or abortions. Four cases were fimbrioplasties, 2 were cornuplasties, 1 was anastomosis, and 3 were fimbriolysis. Of the latter group, some were done in combination with the other procedures. Tubal patency was demonstrated in all 8 patients (table 3).

CONCLUSIONS

Eight tuboplasties are reported. Five of the 8 patients subsequently became pregnant and delivered a total of 8 living infants. Careful case selection and conservative surgical approach is emphasized. Fimbrial occlusion from inflammation was the most common fallopian occlusion encountered in the cases reported from this private practice group. This type of occlusion lends itself best to reconstruction and is followed by the highest pregnancy rate.

Conservative reevaluation of tuboplasty is justified.

ADDENDUM

Since this report was presented 2 additional pregnancies have occurred. Patient 7 delivered an Rh negative living infant. Patient 8 has conceived and at 32 weeks' gestation is as yet undelivered.

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Postductal Coarctation of the Aorta in an Infant

Case with Aneurysms Of Aortic Arch and Anomalies Of Aortic Arch System

JOHN R. RAINEY, JR., M.D., and ENID F. GILBERT, M.B.B.S.

Austin, Texas

SPECIAL ATTENTION has been focused on the diagnosis of coarctation of the aorta during the last decade because of the very effective surgical correction which was first introduced in 1945.[2, 5, 7]

Coarctation of the aorta was early definitively classified into two groups[1]: the infantile or preductal, and the adult or postductal types. Preductal coarctation is a diffuse narrowing of the aortic arch between the left subclavian artery and the opening of the ductus arteriosus. In the postductal type there is usually a localized constriction of the aorta immediately distal to the ductus arteriosus. Two-thirds of all cases of coarctation of the aorta present signs and symptoms of the disease during infancy. The mortality rate during the first year of life for patients with preductal coarctation has been recorded as 89 per cent, with few infants surviving the first few weeks or months of life. The survival of infants with the postductal type of coarctation beyond the first year of life is less than 40 per cent.[9] In consideration of this poor prognosis, it becomes imperative to establish a definitive diagnosis early in life in order to institute corrective therapy.

The purpose of this paper is to describe a case of a postductal coarctation of the aorta occurring in an infant in which there were aneurysms in the arch of the aorta. This finding is extremely rare during infancy, and coupled with the rather unusual anomalies of the aortic arch system make this case of particular interest. Despite the associated anomalies, surgical correction of the defect would probably have been feasible. The infant's rapid demise, however, precluded any such attempt.

Dr. John R. Rainey, Jr., and his co-author offer this paper from the Department of Pathology, Brackenridge Hospital.

CASE REPORT

A 2 month old infant was admitted to the hospital because of respiratory difficulty and cough which had been present for 5 weeks. The infant was the product of the mother's second pregnancy, which was uneventful. The baby was born at term, weighing 7 pounds. Both parents were living and well and there was no family history of any serious illnesses.

The history revealed that the infant had been well until the age of 3 weeks, when she developed spells of coughing and choking which appeared to be worse during feeding. These episodes lasted as long as 5 minutes and recurred at irregular intervals, but had become more frequent during the 2 weeks prior to admission. Fever had not been associated with these bouts of respiratory difficulty.

The physical examination on admission revealed a well developed and well nourished white girl who was in marked respiratory distress. The temperature was 99.2 F. rectally, the pulse rate was 140 per minute, and the respiratory rate was 70 per minute; the weight was 11 pounds. There was some circumoral cyanosis and pallor of the mucous membranes. No skin rashes or petechiae were seen. Result of examination of the ears, nose, and throat was not remarkable. There was no precordial bulge. The point of maximal intensity of the apex beat was in the fifth intercostal space just outside the midclavicular line, and the rhythm was regular. No thrills were palpable; the blood pressure was not recorded. The heart sounds were of normal intensity, and no cardiac murmurs were heard.

This case report with autopsy findings emphasizes the clinical findings in infants with coarctation of the aorta and the need for early diagnosis. Prompt surgical intervention is mandatory for survival with preductal coarctation and for patients with the postductal type who do not respond to medical treatment.

The femoral pulses were not felt. During respiration there was marked retraction of the thoracic cage. The breath sounds were harsh, and rales were heard at both lung bases posteriorly. Palpation of the abdomen revealed the liver edge to be 5 cm. below the right costal margin. The spleen and kidneys were not felt. Roentgenologic examination of the chest (fig. 1) revealed an enlarged heart, with evidence of both right and left ventricular hypertrophy. The vascularity of the lung fields was markedly increased. Further laboratory investigations were not performed because of the infant's rapid death.

On admission the child was immediately placed in a croup tent supplied with Alevaire and oxygen at a rate of 8 liters per minute. Antibiotic therapy was instituted.

The infant failed to respond to therapy and died 45 minutes after admission.

Autopsy Findings.—The body was that of a fairly well developed and well nourished white girl weighing 5.2 kilograms and measuring 58 cm. The lips and nail beds had a slight cyanotic tinge, but clubbing of the fingers was not present. When the thorax was opened, the heart was found to occupy approximately one-half of the chest cavity. Both lungs were dark purple and markedly congested. The abdominal organs were normally located. The liver extended 7 cm. below the right costal margin in the midclavicular line. The liver, spleen, and kidneys were all markedly congested. No other abnormalities were detected.

Description of Heart.—The heart and lungs (fig. 2) together weighed 425 Gm. The right atrium and right ventricle were dilated, and the right ventricular wall was

4 mm. thick. The systemic venous return was normal. The coronary sinus was moderately dilated. The pulmonary and tricuspid valve leaflets were thin and translucent, and the foramen ovale was probe patent. The left ventricle was moderately dilated, and the left ventricular wall was markedly hypertrophied. The thickness of the wall averaged 2 cm. The mitral and aortic valve cusps were thin and translucent, and the coronary artery ostia were patent. There were no atrial or ventricular septal defects. The pulmonic venous return was normal.

There was an anomaly of the aortic arch system. The first branch of the aortic arch was the right innominate artery, which gave origin to the right subclavian and the right common carotid vessels. The second branch was a large dilated vessel which at its origin appeared to have a small indentation. This vessel divided into the left common carotid and a thin cordlike vessel representing a remnant of the left subclavian artery. This vessel was not patent and was a thin cordlike structure. There was a patent ductus arteriosus, which measured 5 mm. in length and 2 mm. in diameter. At the junction of the arch of the aorta and the descending thoracic aorta, just distal to the coarctation, there were two saccular aneurysmal dilatations of the aortic arch. Immediately distal to the first aneurysm there was a constriction of the lumen of the aorta which was produced by a deep reflection of the intima at this point. This had caused the second aneurysm. These saccular aneurysms were smooth-lined; the first measured 1.5 by 1 cm., the second 1 by 1 cm. At a distance of 4 cm. proximal to the thoracic opening of the aorta into the diaphragm there was a large vessel measuring 4 mm. in diameter which was an aberrant left subclavian artery.

Microscopic examination revealed severe pulmonary congestion and edema. The heart showed marked left ventricular hypertrophy with some fragmentation of the myocardial fibers. The liver, spleen, and kidneys were also congested.

The pathological diagnoses were:

1. Postductal coarctation of the aorta.
2. Two saccular aneurysms of the aortic arch.
3. Anomalies of the aortic arch system; two vessels, the right innominate and left common carotid arteries arising from the aortic arch with an aberrant left subclavian artery arising from the descending aorta.
4. Marked left ventricular hypertrophy.
5. Congestion of lungs, liver, spleen, and kidneys.
6. Congestive cardiac failure (clinical).

DISCUSSION

It has been estimated that of all congenital cardiac malformations, coarctation of the aorta is the seventh most common lesion.[4]

The symptoms and physical signs of the postductal type of coarctation are similar to those of the preductal type, but usually are of a less severe degree. Infants with this malformation of the heart usually have a history of feeding and respiratory difficulties associated with congestive failure which is predominantly left-sided. Unless an associated defect is present, cyanosis is rarely present. Occasionally, however, differential cyanosis of the hands and feet is observed in infants with preductal coarctation.[11]

Physical examination indicates the respiratory rate is increased and the second heart sound is of normal intensity. Femoral pulses are frequently palpable, but the blood pressure by the flush technique is at least 15 points lower in the legs than in the arms.[10] A systolic murmur is heard in approximately two-thirds of infants with coarctation. It is best heard along the left sternal border and is well transmitted to the back.

In preductal coarctation, the electrocardiogram shows evidence of left ventricular enlargement shortly after birth.[12] In the postductal type right or left ventricular preponderance may be present and

Fig. 1. Anteroposterior and lateral roentgenograms of the chest showing generalized cardiac enlargement with increased vascularity of the lung fields.

occasionally the tracing is within normal limits.[9, 12] Roentgenographic studies usually show right ventricular enlargement with normal vascularity of the lung fields, if congestive failure is not present.

The diagnosis of coarctation of the aorta in infants should not present a problem if the blood pressures are taken routinely in both arms and legs. Since both angiocardiography and cardiac catheterization carry a definite risk, these special diagnostic studies are not indicated unless a complicated type of malformation is suspected. In infants less than 1 year of age, retrograde aortogram is helpful in differentiating between the preductal and postductal types of coarctation.[9]

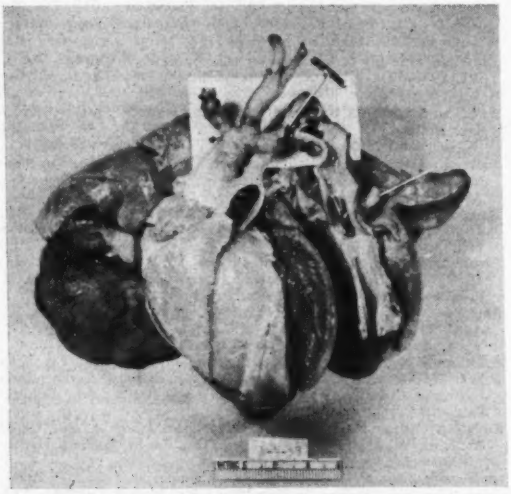

Fig. 2. Gross illustration of the heart and lungs at autopsy. The upper probe is inserted through the coarctation and into the ductus arteriosus. Behind the probe can be seen the two saccular aneurysms of the arch of the aorta. The lower probe is placed in the aberrant left subclavian artery.

Infants with the adult type of coarctation usually respond to conservative therapeutic measures even if they have an episode of failure in early life,[3, 8] and every effort shoud be made to tide them over and delay surgery until the age of 5 or 6 years. However, if supportive medical therapy, which should include adequate digitalization, fails, operative correction should not be delayed. Since infants with preductal coarctation so rarely survive the first year of life, surgery should be performed as soon as the diagnosis is made. Even if the infant is in an apparently moribund condition, operation may prove a life-saving procedure.[9] The operative mortality for patients with the postductal type of coarctation is low, being less than 2 per cent in experienced hands.[6] The repair of a preductal type of coarctation is a more difficult procedure. Mustard and others[9] reported 5 survivals in their first 10 cases in which surgical correction was attempted in infants younger than 1 year. However, since the introduction of cardiopulmonary by-pass by the use of the mechanical pump oxygenator, the operative risk undoubtedly will be greatly reduced in future series of cases.

SUMMARY

A case report together with the autopsy findings of an infant with a postductal coarctation of the aorta associated with aneurysmal dilatations of the aortic arch as well as anomalies of the aortic arch system has been presented.

The clinical findings during infancy of patients with coarctation of the aorta have been reviewed.

Emphasis has been placed on the importance of early diagnosis in these cases, since prompt surgical intervention is mandatory for the survival of infants with preductal coarctation, as well as for those patients with the postductal type who do not respond to medical treatment.

The authors are indebted to Dr. Bernice G. Wedum for her helpful advice and criticism in the examination of the gross specimen of the heart.

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★ Coming Meetings

Texas Medical Association, San Antonio, April 18-21, 1959 (Conference of County Medical Society Officials and Symposium on Legislation, Jan. 24, 1959). Dr. Howard O. Smith, Pres.; Mr. C. Lincoln Williston, 1801 North Lamar Blvd., Austin, Exec. Secy.

American Medical Association, Clinical Meeting, Minneapolis, Dec. 2-5, 1958. Dr. Gunnar Gundersen, La Crosse, Wis., Pres.; Dr. F. J. L. Blasingame, 535 North Dearborn, Chicago 10, Exec. Vice-Pres.

Current Meetings

OCTOBER

American Academy of Ophthalmology and Otolaryngology, Chicago, Oct. 12-17, 1958. Dr. LeRoy A. Schall, Boston, Pres.; Dr. W. L. Benedict, 15 Second St. S.W., Rochester, Minn., Secy.

American Cancer Society, New York, Oct. 29-31, 1958. Dr. L. T. Coggeshall, Chicago, Pres.; M. R. Runyon, 521 W. 57th, New York, Executive Vice-Pres.

American College of Gastroenterology, New Orleans, Oct. 19-25, 1958. Dr. C. Wilmer Wirts, Philadelphia, Pres.; Mr. Daniel Weiss, 33 West 60th, New York 23, Executive Director.

American College of Surgeons, Chicago, Oct. 6-10, 1958. Dr. William L. Estes, Bethlehem, Pa., Pres.; Dr. Michael L. Mason, 40 E. Erie, Chicago 11, Secy.

American Heart Association, San Francisco, Oct. 24-28, 1958. Dr. Robert W. Wilkins, New York, Pres.; Mr. John D. Brundage, 44 E. 23rd, New York 10, Secy.

American Public Health Association, St. Louis, Oct. 27-31, 1958. Roy J. Morton, Oak Ridge, Tenn., Pres.; Dr. Berwyn F. Mattison, 1790 Broadway, New York 19, Executive Secy.

American Society of Anesthesiologists, Pittsburgh, Pa., Oct. 19-24, 1958. Dr. Ralph S. Sappenfield, Miami 37, Pres.; Dr. J. E. Remlinger, Jr., 188 W. Randolph, Chicago 1, Secy.

Association of American Physicians and Surgeons, Interim Meeting, Chicago, Oct. 10-11, 1958. Dr. Mal Rumph, Fort Worth, Pres.; Mr. Harry E. Northam, 185 N. Wabash Ave., Chicago 1, Executive Secy.

Southern Psychiatric Association, Tennessee, October, 1958. Dr. Frank Luton, Nashville, Pres.; Dr. Iverson O. Brownell, Greenville, S. C., Secy.

Southwest Regional Cancer Conference, Fort Worth, Oct. 16, 1958. Dr. O. J. Wollenman, Fort Worth, Chm.; Mrs. Ira Frances Ball, 264 W. 11th, Fort Worth, Secy.

Southwestern Medical Association, Tucson, Ariz., Oct. 23-25, 1958. Dr. Louis G. Jekel, Phoenix, Pres.; Dr. Russell L. Deter, 1501 Arizona, El Paso, Secy.

Texas Pediatric Society, Fort Worth, Oct. 17-18, 1958. Dr. T. J. McElhenney, Austin, Pres.; Dr. James N. Walker, 5216 W. Freeway, Fort Worth, Secy.

Texas Surgical Society, Galveston, Oct. 6-7, 1958. Dr. J. Peyton Barnes, Houston, Pres.; Dr. G. V. Brindley, Jr., Scott and White Clinic, Temple, Secy.

Fourth District Society, San Angelo, Oct. 19, 1958. Dr. Fred D. Spencer, Brownwood, Pres.; Dr. W. Lacey Smith, 111 E. Harris, San Angelo, Secy.

North Texas-Southern Oklahoma Fall Clinical Conference, Wichita Falls, Oct. 18, 1958. Dr. J. B. Hathorn, Jr., 1500 8th, Wichita Falls, Chm.

Oklahoma City Clinical Society Conference, Oklahoma City, Oct. 27-29, 1958. Dr. Herman Fagin, Oklahoma City, Pres.; Miss Alma F. O'Donnell, 503 Medical Arts Bldg., Oklahoma City 2, Executive Secy.

Texas State Board of Examiners in Basic Sciences, Austin, Oct. 13-14, 1958. Henry B. Hardt, Ph.D., Fort Worth, Pres.; Mrs. Betty J. Anderson, Chief Clerk, 303 East Seventh, Austin.

NOVEMBER

American Society of Clinical Pathologists, Chicago, Nov. 1-8, 1958. Dr. Harry P. Smith, New York, Pres.; Dr. Clyde G. Culbertson, 1040 W. Michigan, Indianapolis 7, Secy.

Radiological Society of North America, Chicago, Nov. 16-21, 1958. Dr. Leo G. Rigler, Los Angeles, Pres.; Dr. Donald S. Childs, 713 E. Genesee, Syracuse 2, N. Y., Secy.

Southern Medical Association, New Orleans, Nov. 3-6, 1958. Dr. W. Kelly West, Oklahoma City, Pres.; Mr. V. O. Foster, 1020 Empire Bldg., Birmingham 3, Secy.

Eighth District Society, Galveston, Nov. 14, 1958. Dr. John H. Childers, Galveston, Pres.; Dr. M. Warren Hardwick, 839 E. Mulberry, Angleton, Secy.

Tenth District Society, Beaumont, Nov. 11, 1958. Dr. B. F. Pace, Beaumont, Pres.; Dr. W. J. Poshataske, Silsbee, Secy.

Blackford Memorial Cancer Lectures, Denison, Nov. 11, 1958. Dr. R. G. Gerard, 509 S. Mirick, Denison, Chm.

National and Regional

American Academy of Allergy, Chicago, Feb. 9-11, 1959. Dr. Max Samter, Oak Park, Ill., Pres.; Dr. Bram Rose, Royal Victoria Hospital, Montreal, Canada, Secy.

American Academy of Dermatology and Syphilology, Chicago, Dec. 6-11, 1958. Dr. James R. Webster, Chicago, Pres.; Dr. R. R. Kierland, Mayo Clinic, Rochester, Minn., Secy.

American Academy of General Practice, San Francisco, April 6-9, 1959. Dr. Holland T. Jackson, Fort Worth, Pres.; Mr. Mac F. Cahal, Volker Blvd. at Brookside, Kansas City 12, Executive Secy.

American Academy of Pediatrics, Chicago, Oct. 20-23, 1959. Dr. Stewart H. Clifford, Brookline, Mass., Pres.; Dr. E. H. Christopherson, 1801 Hinman Ave., Evanston, Ill., Secy.

American Association for Maternal and Infant Health, 1960. Mr. Howard I. Wells, Jr., 116 S. Michigan Ave., Chicago 3, Executive Secy.

American Association for Thoracic Surgery, Los Angeles, April 21-23, 1959. Dr. Michael E. DeBakey, Houston, Pres.; Dr. Hiram T. Langston, 7730 Corondelet Ave., St. Louis 5, Secy.

American Association of Genito-Urinary Surgeons, Absecon, N. J., April 15-17, 1959. Dr. John A. Taylor, New York, Pres.; Dr. W. J. Engel, 2020 E. 93rd St., Cleveland 6, Secy.

American Association of Obstetricians and Gynecologists. Dr. William F. Mengert, Chicago, Pres.; Dr. E. Stewart Taylor, University of Colorado School of Medicine, 4200 E. 9th, Denver, Secy.

American College of Allergists, San Francisco, March 15-20, 1959. Dr. Merle W. Moore, Portland, Ore., Pres.; Dr. M. Coleman Harris, 450 Sutter St., San Francisco, Secy.

American College of Chest Physicians, Atlantic City, June 3-7, 1959. Dr. Donald R. McKay, Buffalo, Pres.; Mr. Murray Kornfeld, 112 E. Chestnut, Chicago 11, Executive Secy.

American College of Obstetricians and Gynecologists. Dr. R. Glen Craig, San Francisco, Pres.; Dr. John C. Ullery, Ohio State University Hospital, Columbus, Secy.

American College of Physicians, Chicago, April 20-24, 1959. Dr. Dwight L. Wilbur, San Francisco, Pres.; Mr. E. R. Loveland, 4200 Pine, Philadelphia 4, Secy.

American College of Radiology, Chicago, Feb. 6-7, 1959. Dr. Vincent W. Archer, Charlottesville, Va., Pres.; Mr. W. C. Stronach, 20 N. Wacker Dr., Chicago 6, Executive Director.

American Congress of Physical Medicine and Rehabilitation. Dr. Donald L. Rose, Kansas City, Kan., Pres.; Dorothea C. Augustin, 30 N. Michigan Ave., Chicago, Executive Secretary.

American Dermatological Association, Atlantic City, June 1-4, 1959. Dr. J. Lamar Callaway, Durham, N. C., Pres.; Dr. Wiley M. Sams, 308 Ingraham Bldg., Miami, Secy.

American Gastro-Enterological Association. Dr. F. J. Ingelfinger, 65 E. Newton, Boston 18, Secy.

American Gynecological Society, Hot Springs, Va., May 25-27, 1959. Dr. Lewis C. Scheffey, Philadelphia, Pres.; Dr. A. A. Marchetti, 3800 Reservoir Rd. N.W., Washington 7, D. C., Secy.

American Hospital Association. Mr. Tol Terrell, San Angelo, Pres.; Dr. Edwin L. Crosby, 18 E. Division, Chicago 10, Executive Director.

American Laryngological, Rhinological, and Otological Society, Hot Springs, Va., March 10-12, 1959. Dr. G. D. Hoople, Syracuse, N. Y., Pres.; Dr. C. S. Nash, 708 Medical Arts Bldg., Rochester, N. Y., Secy.

American Neurological Association, Atlantic City, June 15-17, 1959. Dr. Bernard J. Alpers, Philadelphia, Pres.; Dr. Charles Rupp, 133 S. 36th, Philadelphia 4, Secy.

American Ophthalmological Society, Hot Springs, Va., May 28-30, 1959. Dr. Derrick Vail, Chicago, Pres.; Dr. M. C. Wheeler, 30 W. 59th, New York 19, Secy.

American Orthopedic Association. Dr. C. Leslie Mitchell, Detroit, Pres.; Dr. Harold A. Sofield, 715 Lake St., Oak Park, Ill., Secy.

American Pediatric Society, Buck Hill Falls, Pa., May 6-8, 1959. Dr. Joseph Stokes, Jr., Philadelphia, Pres.; Dr. A. C. McGuinness, Room 1036, 2800 Quebec St., N.W., Washington 8, D. C., Secy.

American Proctologic Society, Atlantic City, June 15-18, 1959. Dr. Karl Zimmerman, Pittsburgh, Pres.; Dr. Norman D. Nigro, 10 Peterboro, Detroit 1, Secy.

American Psychiatric Association, Philadelphia, April 26-May 1, 1959. Dr. Francis J. Gerty, Chicago, Pres.; Dr. C. H. Hardin Branch, 156 Westminister Ave., Salt Lake City, Secy.

American Surgical Association, San Francisco, April 15-17, 1959. Dr. I. S. Ravdin, Philadelphia, Pres.; Dr. William Altemeier, Cincinnati General Hospital, Cincinnati 29, Secy.

American Urological Association, Atlantic City, April 20-23, 1959. Dr. Adolph Kutzmann, Los Angeles, Pres.; Dr. Samuel L. Raines, 188 S. Bellevue Blvd., Memphis, Tenn., Secy.

International College of Surgeons, U. S. Chapter. Dr. Curtice Rosser, Dallas, Pres.; Dr. Karl Meyer, 1516 Lake Shore Dr., Chicago, Secy.

National Tuberculosis Association, Chicago, May 24-29, 1959. Dr. Mario M. Fischer, New York, Pres.; Mrs. Wallace B. White, 1790 Broadway, New York 19, Secy.

Southern Surgical Association, Boca Raton, Fla., Dec. 9-11, 1958. Dr. James D. Rives, New Orleans, Pres.; Dr. George G. Finney, 2947 St. Paul, Baltimore 18, Secy.

Southwest Allergy Forum, Houston, April 26-28, 1959. Dr. Richard L. Ertet, Houston, Pres.; Dr. Richard H. Jackson, 156 Hermann Professional Building, Houston, Secy.

Southwestern Society of Nuclear Medicine, New Orleans, Spring, 1959. Dr. Herbert C. Allen, Jr., Houston, Pres.; Dr. J. R. Maxfield, Jr., 311 Medical Arts Bldg., Dallas, Secy.

Southwestern Surgical Congress, Denver, March 30-April 2, 1959. Dr. Louis M. Overton, Albuquerque, Pres.; Mary O'Leary, 813 Medical Arts Bldg., Oklahoma City, Exec. Secy.

Tri-State Medical Assembly. Dr. Jack Guthrie, Camden, Ark., Pres.; Dr. Jason Sanders, Sanders Clinic, Kings Highway, Shreveport, La., Secy.

United States-Mexico Border Public Health Association, Brownsville and Matamoros, Tamaulipas, Mexico, April, 1959. Albert O. Irigoyen, Mexico, D. F., Pres.; Dr. Jorge Román, 243 United States Court House, El Paso, Secy.

State

Private Clinics and Hospitals Association of Texas, Dallas, Dec. 14-15, 1958. Dr. Joe Shepperd, Burnet, Pres.; Mr. Henry E. Taylor, Medical Arts Building, Dallas, Executive Secy.

Texas Academy of General Practice, Galveston, Oct. 4-7, 1959. Dr. Charles E. Oswalt, Jr., Fort Stockton, Pres.; Mr. Donald C. Jackson, 1905 N. Lamar, Austin, Executive Secy.

Texas Academy of Internal Medicine, Galveston, Dec. 6-7, 1958. Dr. A. W. Harris, Dallas, Pres.; Dr. Hugo T. Engelhardt, 1216 Main, Houston, Secy. Meetings restricted to members.

Texas Air-Medics Association, San Antonio, April, 1959. Dr. R. Henry Harrison, Bryan, Pres.; Dr. C. F. Miller, P. O. Box 1338, Waco, Secy.

Texas Association of Blood Banks, Austin, February, 1959. Dr. Louis J. Manhoff, Jr., San Antonio, Pres.; L. Ruth Guy, Ph.D., 725 Doctors Building, Temple.

Texas Association for Mental Health, Fort Worth, March 12-14, 1959. Dr. Frank Schooner, Fort Worth, Pres.; Mr. John Lane, 2410 San Antonio, Austin, Executive Director.

Texas Association of Obstetricians and Gynecologists, Fort Worth, Feb. 14, 1959. Dr. Jesson L. Stowe, El Paso, Pres.; Dr. Oran V. Prejean, 1317 N. Washington St., Dallas, Secy.

Texas Chapter, American Association of Public Health Physicians, San Antonio, April, 1959. Dr. David M. Cowgill, San Benito, Pres.; Dr. B. M. Primer, 2709 Rio Grande, Austin.

Texas Chapter, American College of Chest Physicians, San Antonio, April 19, 1959. Dr. J. O. Armstrong, Dallas, Pres.; Dr. Carlos J. Quintanilla,, Box 592, Harlingen, Secy.

Texas Club of Internists. Dr. D. D. Warren, Waco, Pres.; Dr. L. C. Carter, 2600 Procter, Port Arthur, Secy.

Texas Dermatological Society, San Antonio, April 20, 1959. Dr. Earl L. Loftis, Dallas, Pres.; Dr. E. N. Walsh, 1410 Pruitt St., Fort Worth 4, Secy.

Texas Diabetes Association, San Antonio, April 19, 1959. Dr. Merton Minter, San Antonio, Pres.; Dr. Warren W. Moorman, 901 W. Leuda, Fort Worth, Secy.

Texas Division, American Cancer Society, Austin, Dec. 4, 1958. Dr. J. Layton Cochran, San Antonio, Pres.; Mr. Curt W. Reimann, 5014 Bull Creek Rd., Austin 3, Executive Director.

Texas Geriatrics Society, San Antonio, April 20, 1959. Dr. Martin S. Buehler, Dallas, Pres.; Dr. J. A. Armstrong, 3810 Swiss Ave., Dallas, Secy.

Texas Heart Association, San Antonio, April 19, 1959. Dr. William B. Adamson, Abilene, Pres.; Ernest T. Guy, 404 Jesse H. Jones Library Bldg., Texas Medical Center, Houston 25, Executive Director.

Texas Hospital Association, Houston, May 11-14, 1959. Mr. W. P. Earngey, Jr., Fort Worth, Pres.; Mr. O. Ray Hurst, 2208 Main, Dallas, Executive Director.

Texas Industrial Medical Association, San Antonio, April 19, 1959. Dr. Wendell H. Hamrick, Houston, Pres.; Dr. Robert A. Wise, Box 2180, Houston, Secy.

Texas Neurophychiatric Association, San Antonio, April 19, 1959. Dr. Samuel R. Snodgrass, Galveston, Pres.; Dr. Clarence S. Hoekstra, 8215 Westchester Drive, Dallas, Secy.

Texas Ophthalmological Association, San Antonio, April 19, 1959. Dr. Harold Beasley, Fort Worth, Pres.; Dr. James Scruggs, 2223 Austin, Waco, Secy.

Texas Orthopedic Association, San Antonio, April 20, 1959. Dr. Louis J. Levy, Fort Worth, Pres.; Dr. Margaret Watkins, 3503 Fairmount, Dallas, Secy.

Texas Physical Medicine and Rehabilitation Society, San Antonio, April 19, 1959. Dr. Vann S. Taylor, Dallas, Pres.; Dr. Lewis A. Leavitt, Veterans Administration Hospital, Houston, Secy.

Texas Proctologic Society, New Orleans, February, 1959. Dr. C. P. Hardwicke, Austin, Pres.; Dr. H. Gray Carter, 915 St. Joseph St., Dallas, Secy.

Texas Public Health Association. Dr. D. R. Reilly, San Angelo, Pres.; Mr. Wayne Garrett, City Health Department, Fort Worth, Executive Secy.

Texas Radiological Society, Dallas, Jan. 30-31, 1959. Dr. R. F. Wertz, Amarillo, Pres.; Dr. J. E. Miller, 6407 Forest Lane, Dallas 30, Secy.

Texas Rheumatism Association, Galveston, Dec. 5, 1958. Dr. W. W. Bondurant, San Antonio, Pres.; Dr. J. Morris Horn, 3707 Gaston, Dallas, Secy.

Texas Society of Anesthesiologists, San Antonio, April 19, 1959. Dr. M. M. Rosenzweig, San Antonio, Pres.; Dr. M. T. Jenkins, Parkland Hospital, Dallas, Secy.

Texas Society of Athletic Team Physicians, San Antonio, April 18, 1959. Dr. Edward T. Smith, Houston, Pres.; Dr. Jack Brannon, 2715 Fannin, Houston, Secy.

Texas Society of Gastroenterologists and Proctologists, San Antonio, April 19, 1959. Dr. O. P. Griffin, 800 5th Avenue, Fort Worth, Pres.; Dr. A. C. Broders, Jr., Scott and White Clinic Hospital, Temple, Secy.

Texas Society of Ophthalmology and Otolaryngology, Houston, Dec. 5-6, 1958. Dr. Owen R. O'Neill, Paris, Pres.; Dr. Edwin G. Grafton, 4319 Oak Lawn, Dallas, Secy.

Texas Society of Pathologists, San Antonio, April 21, 1959. Dr. John H. Childers, Galveston, Pres.; Dr. Marvin H. Grossman, Box 57, Dallas, Secy.

Texas Society of Plastic Surgeons, San Antonio, April 18, 1959. Dr. Baron Hardy, Houston, Pres.; Dr. Raymond Brauer, 6615 Travis, Houston, Secy.

Texas Traumatic Surgical Society, San Antonio, April 19, 1959. Dr. G. V. Brindley, Temple, Pres.; Dr. W. E. Crump, 1300 Eighth, Wichita Falls, Secy.

Texas Tuberculosis Association, San Antonio, March 19-21, 1959. Dr. John W. Middleton, Galveston, Pres.; Miss Pansy Nichols, P. O. Box 6158, Austin 21, Executive Director.

Texas Urological Society, San Antonio, Jan. 24-25, 1959. Dr. Charles Hooks, Galveston, Pres.; Dr. Charles Hulse, 636 Moore Building, San Antonio.

District

First District Society, Fort Stockton, February, 1959. Dr. H. D. Garrett, El Paso, Pres.; Dr. E. S. Crossett, 1501 Arizona St., El Paso, Secy.

Second District Society, Lamesa. Dr. J. Vernon McKay, Lamesa, Pres.; Dr. Noble L. Rumbo, Box D, O'Donnell, Secy.

Third District Society, Plainview, March, 1959. Dr. Robert H. Mitchell, Plainview, Pres.; Dr. H. Fred Johnson, 2308 W. Eighth, Amarillo, Secy.

Fifth and Sixth Districts Society, Dr. O. L. Riley, Corpus Christi, Pres.; Dr. Thelma Frank, 1314 16th St., Corpus Christi, Secy.

Seventh District Society. Dr. Robert N. Snider, Austin, Pres.; Dr. Richard Lucas, 502 W. 13, Austin, Secy.

Ninth District Society, Huntsville, March 19, 1959. Dr. Lyman C. Blair, Houston, Pres.; Dr. James H. Sammons, Highlands, Secy.

Eleventh District Society, May, 1959. Dr. Ben Wilson, Tyler, Pres.; Dr. Phillip W. Taylor, 833 S. Beckham, Tyler, Secy.

Twelfth District Society. Dr. Paul H. Mitchell, Corsicana, Pres.; Dr. Bernard Roser, Corsicana, Secy.

Thirteenth District Society, Wichita Falls, 1959. Dr. W. R. Sibley, Abilene, Pres.; Dr. R. D. Moreton, 1217 W. Cannon, Fort Worth, Secy.

Fifteenth District Society. Dr. Charles Wise, Naples, Pres.; Dr. George Bennett, 402 S. Bolivar, Marshall, Secy.

Clinics

Dallas Southern Clinical Society, Dallas, March 23-25, 1959. Dr. C. D. Bussey, Dallas, Pres.; Millard J. Heath, 433 Medical Arts Bldg., Dallas 1, Executive Officer.

International Medical Assembly of Southwest Texas, San Antonio, Jan. 26-28, 1959. Dr. Lawrence B. Reppert, 817 South Texas Bldg., San Antonio, Secy; S. E. Cockrell, 202 W. French Place, San Antonio, Exec. Secy.

New Orleans Graduate Medical Assembly, New Orleans, March 2-5, 1959. Dr. Eugene H. Countiss, New Orleans, Pres.; Dr. Maurice E. St. Martin, 1430 Tulane Ave., New Orleans 12, Secy.

Postgraduate Medical Assembly of South Texas, Houston, July, 1959. Dr. Charles D. Reece, Pres.; Dr. C. Forrest Jorns, Secy., Exec. Office, 412 Jesse Jones Library Bldg., Houston 25.

Board Examinations

Texas State Board of Medical Examiners, Fort Worth, Dec. 4-6, 1958. Dr. M. H. Crabb, 1714 Medical Arts Bldg., Fort Worth, Secy.; Miss Luanna Knox, Assistant Secy.

MEDICOLEGAL NOTES

Physician's Role in Adoption Limited by Laws

Questions about laws pertaining to adoption and child placing and the effect such laws have on physicians or hospitals arise from time to time among physicians because of their close proximity to the problem. An allied question deals with what, if any, role the individual physician or hospital plays in the adoption or placing of a child.

A discussion of some of the pertinent laws in this area may help create an understanding of the problems which arise.

Art. 606a of the Penal Code provides that:

> It shall be unlawful for any person, for himself or as an agent or representative of another, to bring or send into this State any child below the age of sixteen (16) years for the purpose of placing him out or procuring his adoption without first having obtained the consent of the State Board of Control, which may be made by application directly to the Board of Control, or through the County Child Welfare Board. Said consent shall be given on a regular form . . . and no person shall bring any such child into this State without such permit and without having filed . . . a bond . . . in the penal sum of One Thousand ($1,000.00) Dollars, conditioned . . . that he will place the child under a written contract approved by the County Child Welfare Board and the Board of Control . . . ; provided, however, that nothing herein shall be deemed to prohibit a resident of this State from bringing into the State a relative or child for adoption into his own family.

The quoted article of our Penal Code no doubt had as its main purpose a method of controlling the dealing in "black-market babies," specifically those being brought in from out of state. Of course, it would apply, also, to any child being brought into the state except by a resident of this state who is bringing the child into the state himself with the intent to adopt the child into his own family. Anyone else bringing a child into the state for the purpose of procuring its placing or adoption must follow the provisions set forth in this Penal Code or such person would be guilty of a misdemeanor. Conviction of this misdemeanor carries a fine of not less than $25 nor more than $1,000, confinement in the county jail for a period not to exceed 12 months, or both the fine and the imprisonment.

It is highly unlikely that physicians or hospitals would be confronted with a situation of this nature, but they should be aware of the situation.

Without question the most important statutes, from the viewpoint of the physician or the hospital, are those found in Art. 695c of Vernon's Annotated Civil Statutes. Art. 695c, Sec. 8(a), 1.(f) defines a "child-placing agency" as follows:

> A child-placing agency is hereby defined to mean any person, public or private association, or corporation, which assumes care, custody, or control of one or more children under sixteen (16) years of age, and which plans for the placement of, or places, any child or children in any institution, foster or adoptive home, provided that natural parents of any such child or children are excluded from this definition.

Art. 695c, Sec. 8(a), 1.(f) further states that a "child-placing activity" is defined as:

> Any person who arranges for the placement with a third party of a child not related to him, or aids or abets in such placement, shall be deemed to be engaged in a child-placing activity.

As can be seen by a reading of the statutes cited, the definition of a child-placing agency is indeed broad, and the definition of a child-placing activity would seem to be even broader in scope. The only interpretation that can be given to such definitions is that any person, association, or corporation (and this would clearly include a physician or hospital if his acts warranted it) would be considered a child-placing agency or engaged in child-placing activity if he arranged for or aided and abetted in the placement of a child or children not related to him.

There is nothing wrong per se in being considered a child-placing agency or engaged in child-placing activity, but anyone so engaged does have certain affirmative obligations, prescribed by law, that must be fulfilled before entering into such activities.

If one desires to engage in a child-placing agency or child-placing activity, it is necessary that the provisions of Art. 695c, Sec. 8(a), 2,(b) and (c) be taken into consideration. Such statutes are as follows:

> (b) Every person, association, institution, or corporation, whether operating for profit or without profit, who shall conduct or manage a child-placing agency, who shall place any child or children who are under the age of sixteen (16) years, whether occasionally or otherwise, away from his own home or relative's home, shall obtain from the State Department of Public Welfare a license to operate as a child-placing agency . . . except that nothing in this Act shall prohibit a natural parent from placing his own child or prohibit a grandparent, uncle, aunt, legal guardian, brother or sister, having attained their majority, from placing a child under the age of sixteen (16) years in the home of relatives or in a licensed institution, agency, or facility coming within the purview of this Act.
>
> (c) Adoption. Every person, association or corporation, whether operating for profit or without profit, other than a natural parent, who shall place any child or children under the age of sixteen (16) years for adoption, whether occasionally or otherwise, shall obtain a license to operate in child-placing from the State Department of Public Welfare . . .

Therefore, it can be seen that it is necessary for one to obtain a license from the State Department of Public Welfare prior to engaging in child-placing activity or as a child-placing agency. Also once an individual or group has become licensed it is necessary to keep records containing such information as may be prescribed by the State Department of Public Welfare. Failure of a person, association, or corporation to comply with such provisions if they are applicable would subject him to being either enjoined by a suit brought by the attorney general or by a county or district attorney or prosecuted for a misdemeanor for violation of these provisions of the law. Upon conviction for such misdemeanor, a person could be fined up to $100, and/or imprisoned in the county jail for a period not to exceed 1 year.

It easily is seen that misunderstanding or ignorance of the law by a hospital or physician might well result in embarrassing, if not serious, legal complications. Due to the fact, however, that physicians and hospitals often are approached by either the parent having the child or by people desirous of adopting a child upon the question of placing or adopting a child, the question still remains as to what, if anything, the physician or hospital can do.

Unquestionably, if the physician or hospital desired to do so, he could become licensed as prescribed by law and would have the legal right to assist in the adoption or placing of children. For the most part, however, this is not practical, for neither the physician nor the hospital has the time nor the desire to become licensed and keep the records incident to such activities. Therefore, it is essential that neither the physician nor the hospital enter into any activities that would be considered child-placing activities.

Hospitals and physicians can not avoid being asked by their patients for advice in adoption matters. The advice sought is of an innocent nature not intending to involve the physician or hospital but results merely from a patient being unfamiliar with adoptive procedures. Therefore, the only course that the physician or hospital may legally take, short of obtaining a license to engage in child-placing activities, is to inform the patient that there are certain strict legal requirements which must be followed in the adoption or placing of children. Certainly there is nothing wrong in advising or counseling the patient as to the normal procedures followed in the adoption or placing of a child, but to go beyond that point and actually aid or abet in the placing or adoption of the child would clearly be in violation of the law.

—PHILIP R. OVERTON, LL.B., Austin.

EDUCATION

Postgraduate Courses

Medical Problems of the Elderly, Houston, October 23-25.—The University of Texas Postgraduate School of Medicine and the Department of Health, Education and Welfare, Office of Vocational Rehabilitation will present a course on medical problems of the elderly at the Texas Medical Center. Phases to be studied include nutritional problems, endocrinology, gastroenterology, cardiovascular disorders, musculoskeletal system, pulmonary diseases, genitourinary diseases, skin maladies, and neurology. Tuition for the course is $20 and credit hours given are 20.

The University of Texas Southwestern Medical School, Dallas, October 30-November 4.—A course on fractures and dislocations will be offered October 30-November 1 with Dr. Charles V. Heck, professor of orthopedic surgery at the University of Chicago, as guest speaker. A course in psychiatry will be presented November 3-4. Dr. Milton Rosenbaum, professor and chairman of the Department of Psychiatry at the Albert Einstein College of Medicine in New York, will be the featured speaker. For further information, physicians may write to Dr. John S. Chapman, Division of Postgraduate Education, University of Texas Southwestern Medical School, 5323 Harry Hines Boulevard, Dallas 35.

Epilepsy, Denver, October 30-November 1.—The tenth Western Institute on Epilepsy will be sponsored by the Western Institute on Epilepsy and the University of Colorado School of Medicine. Diagnostic, therapeutic, social, psychological, and educational aspects of epilepsy will be presented. Additional information may be obtained by writing to the Office of Postgraduate Medical Education, University of Colorado Medical Center, 4200 East Ninth Avenue, Denver 20.

American College of Physicians, November. — The American College of Physicians has arranged the following courses during November. A course in selected subjects in internal medicine will be presented November 3-7 at the Mayo Clinic and Mayo Foundation at Rochester, Minn. The University of Michigan Medical School at Ann Arbor will offer a course on gastroenterology November 10-14. A course on congenital heart disease will be given November 17-22 at the Johns Hopkins Hospital in Baltimore. Registration materials or additional details may be obtained from E. R. Loveland, Executive Secretary, The American College of Physicians, 4200 Pine Street, Philadelphia 4.

Diseases of the Chest, New York, November 10-14.—The American College of Chest Physicians will present a course in the diagnosis and treatment of chest disease at the Park-Sheraton Hotel. Tuition for the course is $100. Further information may be obtained by writing to the Executive Director, American College of Chest Physicians, 112 East Chestnut Street, Chicago 11.

Chemotherapy, Houston, November 14-15.—The University of Texas Postgraduate School of Medicine will present a course in the status of cancer chemotherapy at the University of Texas M. D. Anderson Hospital and Tumor Institute. Registration fee is $5.

The University of Oklahoma Medical Center, Oklahoma City, November 12-19.—The second Oklahoma Colloquy on Advances in Medicine, which will be held November 12-15, will be devoted to arthritis and related disorders. A course in anorectal lesions and their management will be held November 19. Further information may be obtained by writing the Office of Postgraduate Education, University of Oklahoma School of Medicine, 801 Northeast 13th Street, Oklahoma City.

Baylor Receives Research Grant

Baylor University College of Medicine at Houston has been given an $80,233 grant by the National Foundation, originally the National Foundation for Infantile Paralysis.

The grant to Baylor was 1 of 21 given to medical schools and other medical institutions throughout the country to aid research looking toward possible break-throughs in virus diseases and other serious human illnesses. The virus research awards amounted to $1,643,233.

The Baylor grant will be used to conduct laboratory and field studies on the polio, ECHO, and Coxsackie viruses known as enteroviruses.

University of Texas Medical Branch

Dr. James W. Warren has been appointed professor of medicine and chairman of the department at the University of Texas Medical Branch at Galveston to succeed *Dr. Charles T. Stone.*

Dr. George R. Herrmann and *Dr. Milton J. Hejtmancik* of the Department of Medicine attended the third World Congress of Cardiology in Brussels, September 14-21.

Dr. John Q. McGivney and *Dr. Marcel Patterson* of the Medical Branch faculty won the annual Collier Ford Martin Award at the meeting of the American Protologic Society in Washington recently for their scientific exhibit on ulcerative colitis.

Dr. Hamilton F. Ford, professor in the Department of Neuropsychiatry, was chairman of the first meeting of Professors of Psychiatry West of the Mississippi, September 5-6.

Dr. Hans A. Krebs, professor at the University of Oxford in England, gave the Kempner Memorial Lecture on "The Regulation of Metabolic Processes" October 3 at the medical branch.

DRUG NOTES

New Sulfonamides, Tranquilizer, Fecal Softener Are Discussed

MADRIBON (Hoffman-LaRoche) is a new sulfonamide that was to be released early in September. It will be available in .5 Gm. scored tablets and in a pediatric suspension of 2 ounces or 4 ounces containing .5 Gm. of the drug in each teaspoonful. An ampule will be available at a later date.

The new drug shows the characteristic bacteriostatic effect of the sulfonamides: rather poor activity against certain gram-negative and gram-positive pathogens but marked effect against staphylococci and members of the Escherichia coli-Salmonella group.

Madribon is often markedly superior to Gantrisin in streptococcal, pneumococcal, Listeria, salmonella, and Klebsiella infections, but not as effective as, Gantrisin with Pseudomonas organisms.

In comparison with Gantrisin the new drug shows more prolonged blood levels accompanied by slower metabolization and slower excretion.

The adult dose is 2 Gm. as a priming dose followed by 1 Gm. every 24 hours. One-half of these amounts may be given: 1 Gm. followed by .5 Gm. daily.

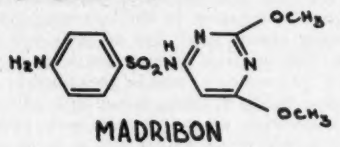
Children (4 to 12 years) are given one-half the preceding dose while infants and children up to 4 years of age are given one-quarter of the adult dose.

Daily blood level determinations should be made because absorption of the drug varies with the individual. The reagents and procedure for this may be obtained from the manufacturer or possibly his sales representative.

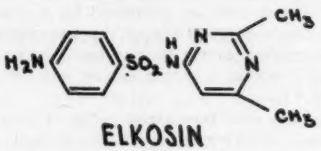
The usual precautions of discontinuing or reducing the dosage of the drug should be carried out if nausea, vomiting, urticaria, rash, fever, or hematuria is observed.

If the drug is used over a long period of time or intermittently, blood counts should be made to detect blood dyscrasia.

Chemically Madribon is 4-sulfanilamido-2, 6-dimethoxypyrimidine. It is closely related to Elkosin (Ciba). Elkosin or sulfadimetine is 4-sulfanilamido-2, 6-dimethylpyrimidine. The difference is an atom of oxygen interposed between each of the methyl groups attached to the pyrimidine ring of Elkosin giving Madribon.



MADRIBON



ELKOSIN

STELAZINE (Smith, Kline & French) is a new tranquilizer still under clinical trial and not available at this writing. This drug is said to be 10 times more active than Thorazine (Smith, Kline & French) in certain animal tests. It has been shown that the dosage for therapeutic effect is far below that required for Thorazine. The effect is more rapid and more intense than for previous phenothiazine derivatives.

The production of hypotension has been rare and with barbiturates may give only one-tenth the potentiating effect given by Thorazine.

The probable dose forms are tablets of 1 mg., 5 mg., and 10 mg., and ampules of 1 mg. per cubic centimeter and 5 mg. per cubic centimeter in 1 or 2 cc. sizes.

Side effects that have been noted are drowsiness, extrapyramidal symptoms, increased motor activity, anxiety, difficulty in swallowing, blurred vision, and dizziness. These effects were in most cases not severe enough to discontinue treatment. Most side effects occurred early in treatment if at all and disappeared as treatment continued. No blood dyscrasia nor liver dysfunction has been observed.

Although investigational clinical work has been accomplished on hospitalized psychotic patients, it is anticipated that because of the high degree of efficacy, rapid onset of action, and low incidence of limiting and controllable side reactions, Stelazine holds promise for the treatment of ambulatory patients.

Chemically Stelazine is a trifluoromethylphenothiazine derivative with the generic name trifluoperazine. Its relationship to other known compounds may be pictured as follows: the chlorine atom on the phenothiazine ring of chlorpromazine (Thorazine) has been replaced with $-CF_3$ while at the other end of the Thorazine molecule the dimethylamino- portion has been replaced by methylpiperazine. This is the same as corresponding ends of Perazil (Burroughs Wellcome), Diparalene (Abbott), and Marezine (Burroughs Wellcome) and is also very similar to groupings found more or less centrally in Bonamine (Pfizer) and Atarax (Roerig).

AZO-SULFA B/A (Tutag) is another formulation of the Pyridium-sulfa type with the addition of antispasmodics in a two layer tablet.

The core contains phenylazodiaminopyridine hydrochloride, 50 mg.; hyoscine hydrobromide, .0065 mg.; atropine sulfate, .0194 mg.; hyoscyamine sulfate, .1037 mg.; and in the outer layer sulfacetamide, 125 mg.

This formulation is to be used as a urinary antibacterial, analgesic, and antispasmodic.

The adult dose is 2 or 3 tablets, three or four times a day.

A number of closely related products are on the market: phenylazodiaminopyridine hydrochloride alone has

been supplied as Pyridium by Merck, later by Nepera and presently by Warner-Chilcott. It is supplied also in combination with Gantrisin as Azo-Gantrisin (Roche), with sulfacetamide as Azonamide (Harvey) and Sulfidium (Columbus).

Combinations of the azo dye exist with sulfamethizole as Thiosulfil-A (Ayerst) and Urosulfin (Nepera). This same combination plus tetracycline (Achromycin) is available as Azotrex (Bristol). Suladyne tablets of the Stuart Company is the azo dye along with the two sulfa drugs sulfadiazine and sulfamethizole.

It is also interesting to note the ingredients of Sulfid B-A (Columbus) to compare with Azo-Sulfa B/A: phenylazodiaminopyridine hydrochloride, 50 mg.; hyoscine hydrobromide .00325 mg.; atropine sulfate, .0097 mg.; hyoscyamine sulfate, .05185 mg.; and sulfacetamide, 250 mg. (American Drug Index, 1958).

DELVEX (Lilly), a cyanine dye, has appeared in the literature under the name dithiazine iodide. It is known as Anelmid in Italy and as Telmid or Partel in other countries.

Delvex is a "wide spectrum" anthelminthic said to eliminate pinworm, round worm, whipworm, and Strongyloides infections. See J.A.M.A. 165:2063 (Dec. 21) 1957, and Pharmacol. Rev. vol. 9, no. 3 (Sept.) 1957.

Vanquin (Parke-Davis) is a related cyanine dye effective against enterobiasis.

POLYKOL DROPS (Upjohn) is a recently introduced fecal softener. A non-ionic surface active agent containing in each cubic centimeter 200 mg. of poloxalkol oxyethylene oxypropylene polymer. The dosage for children from 3 to 12 years is 1 cc. one to three times daily. The liquid is supplied in 1 ounce dropper bottles retailing at about $2 to $2.20. It does not carry the prescription legend, therefore can be purchased without a prescription.

Polykol Drops are a reminder of Magnocyl (Elder) introduced just about a year ago. Magnocyl capsules contain 250 mg. of "propethylene oxides." If these two are the same substance, they should carry the same generic name. Perhaps users are supposed to think they are different substances! They could have a relationship of a sort, similar to that between light and heavy mineral oil.

Surface active agents may be classified into three types: cationic, in which the fat soluble portion of the molecule is positive in electrical charge; anionic, in which the negative portion of the molecule is the fat soluble portion; and finally, the non-ionic agents, in which the fat-loving portion contains fatty acid hydrocarbon chains or phenols while the water-loving portion is characterized by the presence of hydroxyl or ether-oxygen groups.

Examples of each type are as follows: cationic—Zephiran (benzalkonium chloride, Winthrop), and Phemerol (Benzethonium chloride, Parke-Davis); anionic—sodium lauryl sulfate (Dreft), ordinary soap, Aerosol OT, Colace (Mead), and Doxinate (Lloyd); non-ionic—the glycols, glycerin, and the sorbitols (Tweens and Spans).

The formula for polyethylene glycol can be represented as $HO\text{-}CH_2\text{-}(CH_2\text{-}O\text{-}CH_2)n\text{-}OH$. Although chemists cringe at the thought, pharmaceutically these can be thought of as polyalcohols. Where the number represented by *n* is high, solids known as the Carbowaxes (Union Carbide & Carbon) result. These can be looked at as ethers or polyethers or even as polyethylene oxides.

If one takes a mixture of polyoxyethylene-polyoxypropylene-polyoxethylene glycols, he obtains a group called the Pluronics. It may be assumed that Polykol and Magnocyl fit this latter group and may be the same or different depending on the average value of *n*.

—HERBERT SCHWARTZ, M.S., Austin.

MEDICAL MEETINGS

Dr. Rouse to Become President Of Southern Medical Association

Dr. Milford O. Rouse of Dallas will become president of the Southern Medical Association at its meeting—the second largest general medical meeting in the United States—in New Orleans, November 3-6. Scientific color television programs, a geriatrics symposium, a president's annual dinner dance, 20 alumni fraternity parties, and a scientific assembly composed of 20 sections will be featured.

Among the many Texas doctors participating on the program will be Dr. Boen Swinny, San Antonio; Dr. Bernard T. Fein, San Antonio; Dr. J. Walter Park, III, San Antonio; Dr. Stewart A. Wilber, Houston; Dr. Charles R. Allen, Galveston; Dr. Dennis Canter, Dallas; Dr. M. T. Jenkins, Dallas; Dr. Charles J. Wilson, Galveston; Dr. F. Clark Douglas, Dallas; Dr. Herbert A. Bailey, Dallas; Dr. Marcel Patterson, Galveston; Dr. John R. Kelsey, Jr., Houston; Dr. E. Stanley Crawford, Houston; Dr. Henry Laurens, Temple; Dr. M. E. Salem, Temple; Dr. Nicholas C. Hightower, Temple; Dr. William B. Harrell, Texarkana; Dr. Norborne B. Powell, Houston; Dr. Elizabeth B. Powell, Houston; Dr. V. C. Baird, Houston; Dr. V. William Cole, Houston; Dr. James K. Alexander, Houston; Dr. William P. Wilson, Galveston; Dr. Thomas H. McGuire, Houston; Dr. Walter O. Klingman, Galveston; Dr. Martin L. Towler, Galveston; and Dr. Jerome L. Byers, Dallas.

Others taking part will be Dr. F. O. McGehee, Houston; Dr. R. A. Murray, Temple; Dr. R. W. Leong, Houston; Dr. Harold Wood, Houston; Dr. Harriet M. Felton, Galveston; Dr. Martha Dukes Yow, Houston; Dr. John P. McGovern, Houston; Dr. James C. Flanagan, Galveston; Dr. Oscar O. Selke, Jr., Houston; Dr. Lewis A. Leavitt, Houston; Dr. John McGivney, Galveston; Dr. O. J. Potthast, San Antonio; Dr. Harry B. Burr, Houston; Dr. W. Truett Melton, Houston; Dr. Herbert Hayes, Houston; Dr. Fredrick J. Bonte, Dallas; Dr. H. L. Bryan, Dallas; Dr. J. S. Krohmer, Dallas; Dr. H. J. Mize, Dallas; Dr. Gilbert H. Fletcher, Houston; Dr. Edgar C. White, Houston; Dr. Henry M. Carney, Texarkana; Dr. R. Lee Clark, Jr., Houston; Dr. Cecil M. Crigler, Houston; Dr. Sidney Jones, Houston; Dr. T. C. Flemming, Houston; and Dr. D. L. Merrill, Houston.

Nebraska Clinical Conference To Provide Postgraduate Study

The twenty-sixth annual assembly of the Omaha Mid-West Clinical Society will be held November 3-6 at the Sheraton-Fontenelle Hotel in Omaha, Neb. Four days of postgraduate study will be presented under the joint sponsorship of Creighton University School of Medicine and the University of Nebraska College of Medicine.

Eleven guest speakers from various parts of the nation will be featured on the program. Three panel discussions will be held entitled, "Staphylococcus Infections," "Obstetric Shock," and "Common Fractures." Also a symposium on "This Is What's New," a discussion of the most recent developments in medicine and surgery, will be presented. Attendance at each session of the meeting will entitle members of the American Academy of General Practice to 34 hours of formal credit. Inquiries may be addressed to the Alumni Association, University of Nebraska College of Medicine, Omaha 5.

Pediatric Society Meets in Fort Worth

The Texas Pediatric Society is holding its 1958 meeting in the Hilton Hotel, Fort Worth, October 17-18, under the auspices of District 4, instead of in Austin as was printed in the news story in the September *Journal* on page 672.

Included in the scientific program were the following guest speakers and their subjects: Dr. Donald J. Fernbach, Houston, "Neutropenia in Childhood"; Dr. Horace L. Hodes, New York, "The Summary of Viral and Bacterial Causes of Diarrhea" and "Clinical Diseases Caused by Coxsackie Viruses"; Dr. Susan C. Dees, Durham, N. C., "Infection and the Allergic Child" and "Experience with Adeno-Virus Vaccine in Allergic Children"; Dr. Robert Stubblefield, Dallas, "Emotional Problems in School-Age Child" and "Counseling and Therapy with Emotionally Disturbed Adolescents"; Dr. Richard T. Smith, Dallas, "A Natural History Diagnosis and Management in Juvenile Rheumatoid Arthritis"; Dr. Harriet M. Felton, Galveston, "The Organization and Operation of a Surveillance Team for the Control of Hospital Infections." A panel discussion on "Common Problems in Pediatric Practice" also was scheduled.

Among the social activities planned were a cocktail party, a banquet and dance, and a morning breakfast. A luncheon was to be held for the ladies at the hotel swimming pool.

Southwestern Medical Association Meets in Tucson, October 23-25

The Southwestern Medical Association will hold its fortieth annual meeting, October 23-25, in Tucson, Ariz. Attendance at the meeting has been approved by the American Academy of General Practice for 15 hours' credit in category 1. Registration fee is $10; interns, residents, military personnel, and nurses will be admitted free of charge.

Guest speakers for the meeting include Dr. John I. Brewer, Chicago; Dr. R. V. Platou, New Orleans; Dr. George C. Andrews, New York; Dr. John W. Henderson, Rochester, Minn.; Dr. Robert M. Zollinger, Columbus, Ohio; Dr. Reginald H. Smart, Los Angeles; and Dr. J. R. Schenken, Omaha, Neb.

The scientific program will feature round-table luncheon meetings on surgery, dermatology, gynecology, pathology, pediatrics, medicine, and ophthalmology, as well as a symposium on pediatrics. Included in the entertainment planned is a cocktail party and chuck wagon dinner, a president's dinner, golf, swimming, tennis, and a football game between the University of Arizona and the University of Idaho. Special events have been planned for the ladies.

For further information, doctors may write Dr. Howard D. Cogswell, 1602 North Norton, Tucson.

Cancer Conference Held

Recent advances in the treatment of leukemia and lymphomas were given at the twelfth annual Southwest Regional Cancer Conference held in Fort Worth on October 16.

Guest speakers included Drs. J. W. Carpender, Jr., Chicago Tumor Institute for Radiation Therapy, Chicago; Joseph M. Hill, Wadley Blood Center, Dallas; and Emil Frei, National Cancer Institute, Bethesda, Md.

Texas Doctors Participate In Ohio Assembly

Two Texas doctors will participate on the program of the annual scientific assembly of the Interstate Postgraduate Medical Association, November 10-13, in Cleveland.

Dr. John C. Young, clinical professor of pediatrics at Southwestern Medical School, Dallas, will speak on "Behavior Problems of Children," and Col. H. H. Ziperman, director, Department of Military Medicine and Surgery, Brooke Army Medical Center, Fort Sam Houston, on "Wound Debridement." Dr. R. D. Douglas of Jefferson will receive a citation for having attended 10 meetings since 1940.

Approximately 50 guest speakers from all over the nation will be participants on the program. Registration fees are $10 for physicians attending all or part of the program and $2 for physicians in the armed forces, residents, interns, graduate nurses, technicians, and dietitians. A special program will be held for wives of physicians. Further information may be obtained by writing Dr. Erwin R. Schmidt, Interstate Postgraduate Medical Association, Box 1109, Madison 1, Wis.

1,100 Attend GP Meeting

A total registration of 1,100 persons, 550 of whom were physicians, attended the ninth annual scientific assembly of the Texas Academy of General Practice held September 22-24 in San Antonio. Dr. Max E. Johnson, San Antonio, was chairman in charge of local arrangements.

New officers elected included Dr. E. Sinks McLarty, Galveston, president-elect; Dr. L. W. Johnson, Houston, treasurer; and Dr. J. M. Partain, San Antonio, vice-president. Dr. Lloyd M. Southwick, Edinburg, was elevated to delegate to the American Academy of General Practice and Dr. Cecil F. Jorns, Houston, was elected alternate delegate.

Newly elected directors are Dr. John M. Smith, Jr., San Antonio, District 5; Dr. William T. Anderson, LaMarque, District 8; Dr. Edmund D. Jones, Beaumont, District 10; Dr. Guy T. Denton, Jr., Dallas, District 14; and Dr. T. K. Nichols, Atlanta, District 15. Dr. G. W. Cleveland of Austin will serve on the board of directors during the year as immediate past president. Dr. Charles E. Oswalt, Jr., Fort Stockton, took over as president of the academy.

Among the honored guests at the meeting were Dr. Holland T. Jackson of Fort Worth, president of the American Academy of General Practice, and Dr. F. J. L. Blasingame of Chicago, executive vice-president of the American Medical Association.

Society for Crippled to Dallas

With "Hand in Hand for Rehabilitation" as its 1958 convention theme, members of the National Society for Crippled Children and Adults will hear specialists discuss and demonstrate newest techniques in care and treatment of the handicapped. The group is scheduled to meet November 16-20 in Dallas.

An institute on "The Brain Injured Child," a special cerebral palsy forecast, workshops, seminars, round tables, and special meetings on every phase of rehabilitation will be on the list of 4 day activities. The brain injured child

institute will be sponsored jointly by the National Society; Texas Council for Exceptional Children; Division of Special Education, Texas Education Agency; and the Texas Society for Crippled Children and Adults. The convention keynote address will be given by Ben Wooten, Dallas, president of the First National Bank.

A number of social activities are also planned for the convention. Included among these will be a shrimp boil sponsored by the Louisiana Chapter of the national society, a chuck wagon feed and supper with the Texas society as host, the annual President's banquet, square dancing, a style show, and tours.

Texas Doctors Attend WMA Meeting in Copenhagen

Three Texans attended the twelfth General Assembly of the World Medical Association at the Christianborg Palace, Copenhagen, August 15-19. They were Dr. May Owen, Fort Worth; Dr. William M. Crawford, Fort Worth; and Dr. Leroy A. Wilcox, Palacios. Dr. F. J. L. Blasingame, executive vice-president of the American Medical Association, formerly of Wharton, was asked to serve as a delegate from Brazil, since no one from that country could attend.

Uraguay and Vietnam medical associations became members of the World Medical Association at the meeting, making a total membership of 55 nations representing more than 700,000 physicians. The 1959 meeting will be held in Montreal in September, preceded by a second World Conference on Medical Education at Chicago.

At the meeting, it was indicated by the Committee of Socio-Medical Affairs that there is a universal struggle going on between governments and the medical profession in various areas of the world. Dr. John Henderson, New York, medical director of Johnson & Johnson, told the assembly that in the United States alone 3,000,000 persons were alive because of the almost unbelievable progress of medicine in the last 10 years. He stated that men of science spoke a common language, ethics were universally applicable, and a great deal of international understanding could be gained through promotion of the outlook of the health team.

The 1959 budget for the association was set at $250,000. It was reported that the United States supporting committee and the American Medical Association had contributed as much as 58 per cent of the annual income in 1958. Each member was asked to adopt as much of its share as possible in the coming year so that relatively more could be given by other nations, relatively less expected from the United States.

It was the consensus that medical publications are the most effective means of communicating medical information and that advertising of pharmaceuticals offers a legitimate and effective means of financing such publications.

The association is now making available the Central Repository for Medical Credentials. To utilize this service, a physician must complete application and identification forms which he transmits with microfilm or photostatic copies of his credentials to the secretariat. When he needs his credentials, they are returned to him or his duly authorized representative upon submitting acceptable identification proving the credentials to be his property. Physicians wishing to receive the forms making this service available may send their name and address to WMA, 10 Columbus Circle, New York 19.

Southern Association Opens New Home

Formal opening of the $250,000 home of the Southern Medical Association was held in Birmingham, Ala., September 7, with guests representing the medical profession, local and state officials, and lay and Auxiliary leaders attending.

More than 1,000 persons visited the building during the opening. Past presidents whose administrations coincided with the conception of the building plan, initiation, and construction of the home office took part in the dedication program. Dr. Milford O. Rouse of Dallas, president elect of the organization, was a participant.

OF GENERAL INTEREST

Personals

Dr. H. J. Kaplan, Bay City, has completed his requirements for a law degree and is now eligible to take the state bar examination. He studied law as a hobby and intends to continue the practice of medicine.

Dr. Daniel E. Jenkins, Jr., of Houston took office as president of the American Trudeau Society at its meeting in May.

Dr. Curtice Rosser of Dallas was moderator for a panel discussion on "Problems in Anorectal Surgery" at the Northwest Proctologic Society meeting held August 27-29 in Sun Valley, Idaho.

Dr. William M. Lindsey, Dallas, has been appointed to the medical staff of Southwesern Life Insurance Company in Dallas home offices.

Dr. Carl A. Nau, Galveston, has been named one of the winners of the "Industrial Health Awards," presented annually at the Health Conference for Business and Industry in Houston to persons or organizations for their "outstanding contributions in the field of industrial health."

Former chairman of the Department of Medicine at Baylor University College of Medicine, *Dr. James A. Greene,* has resigned after 15 years of service in order to go into private practice.

Dr. Michael E. DeBakey, professor of surgery at Baylor University College of Medicine, Houston, has received the Alvarenga Prize of the College of Physicians of Philadelphia for outstanding work in the surgical treatment of the diseases of blood vessels. An annual award, the prize was established by the will of a Portuguese associate fellow of the college who died in 1883.

Dr. Rodger G. Smyth, San Antonio, has been named head of the City Health Department Chest Clinic in San Antonio. Dr. Smyth was formerly a member of the San Antonio State Tuberculosis Hospital.

The Council on Medical Education and Hospitals of the American Medical Association has appointed *Dr. M. Eleanor Blish* of Houston as a member of its field staff. Dr. Blish has been an assistant clinical professor of pediatrics at the Baylor University College of Medicine. She also has been assistant to the director of the children's clinic at the Houston Tuberculosis Hospital.

Dr. E. R. Veirs, chief of the ophthalmological service at Scott and White Memorial Hospital and Clinic at Temple, participated at the September meeting of the International Congress of Ophthalmology in Brussels, Belgium. He spoke on disorders of the lacrimal canaliculus. Dr. Veirs was joined at the meeting by his wife and by *Dr. and Mrs. F. W. Howell* of Temple.

Operation Recheck

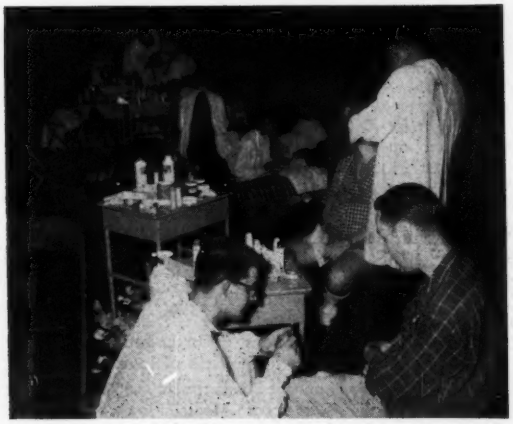
Joe Tupin, commander of the "Operation Recheck," explains the project to observers. He is president of the University of Texas Medical Branch chapter of the Student American Medical Association.

An 80 kilo ton outburst (4 times larger than the Hiroshima bomb) hit the Houston area, disrupting all communications and destroying the major portion of its medical facilities. A survey team of specialists found the Dickinson area suitable for setting up an emergency hospital, and responsibility was delegated to the medical and nursing students at the University of Texas Medical Branch.

This was the hypothetical situation from which students at the University of Texas Medical Branch carried out the civil defense drill, "Operation Recheck," in Dickinson, September 19.

The project, entirely executed and administered by students in all classifications, began with an orientation program held at 3 p. m. in Randall Hall at the Medical Branch campus in Galveston. Col. Haskel Zipperman of Brooke Army Medical Service School, San Antonio, spoke to the group on "Principles of Sorting of Casualties." Commander of the project, Joe Tupin, who is president of the University of Texas Medical Branch chapter of the Student American Medical Association, and group leaders explained the procedure to those observing.

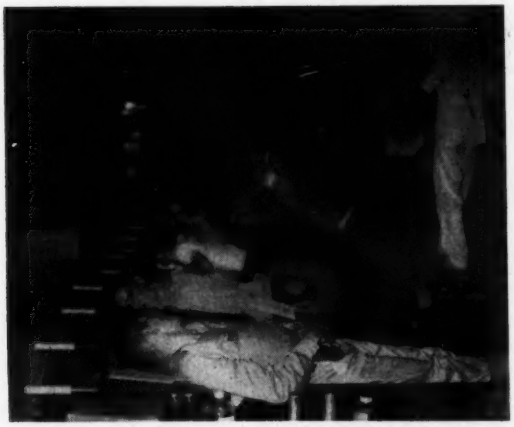
"Operation Recheck" began in Dickinson in the early part of the afternoon when local persons participating were alerted; part of the 400 casualties started arriving at the emergency station at 3 p. m. Medical students arrived on the scene at approximately 5:45 p. m. A briefing was held at Dickinson Junior High School cafeteria, where a sorting (triage) station was set up to sort and label the patients who arrived with lifelike painted injuries.



Victims receive lifelike painted injuries at the Dickinson Junior High School.

A 200-bed Federal Civil Defense Administration hospital, which was set up in Dickinson High School by the medical students, received patients from the first aid station. (Such hospitals are available for storage in cities 20 miles or more from possible targets. They are supplied with equipment for x-ray, triage, supply, and information, as well as various wards.) Medical students and student nurses went through the task of sorting, diagnosing, and treating the casualties.

Approximately 1,700 civilians volunteered their services for the project, which was supported by the Galveston County Medical Society. Among the groups participating were the Galveston County Civil Defense unit, which helped with the communications, transportation, security,



Casualties expected to die immediately are sent to the expectant ward.

A medical student operates on a person with an injured leg with the assistance of a student nurse.

and labor pool, and the Red Cross, which served food to more than 2,000 persons.

Visitors attending were several civil defense chairmen from the county medical societies, persons connected in their community in some capacity with civil defense, and representatives from Tulane University School of Medicine, New Orleans; the University of Mississippi School of Medicine, Jackson; the University of Oklahoma School of Medicine, Oklahoma City; Baylor University College of Medicine, Houston; and the University of Texas Southwestern Medical School, Dallas. Members of the University of Texas Medical Branch's Committee on Medical Education for National Defense served as sponsors and umpires. The Executive Council of the Texas Medical Association commended the action of the Committee on National Emergency Medical Service in their support of the project.

A meeting in the junior high school was held for participants and observers immediately following the project for the umpires to give their opinions as to the effectiveness of "Operation Recheck." Group leaders also analyzed their part of the drill.

Facts Told on British Health Service

Socialized medicine came to England 10 years ago with the thought that the burden on the country's economy would be made no greater by the substitution of a publicly provided service for one that was paid for privately, reports *The Economist,* a London newspaper. It brought medical and dental care for everyone—resources which were already limited were spread over the entire population.

The service in its present form has turned out to be a failure, *The Economist* says. Sickness can not be reduced simply by providing free treatment. The British people as taxpayers have had to spend more on health services than they had done before as patients. Total resources of the new health service have not been large enough to provide for everyone who wanted to use it. The shortage has been felt more keenly by the aged, the chronically sick, and school children in need of dental care, groups that before 1948 had received priority care but who are now handicapped by the rush of people for treatment.

In the past 10 years, only one small new hospital has been built in all the British Isles. In order to keep the total health service estimates down, the British government has raised the health service portion of the national insurance contribution or tax twice and has vetoed increases in pay for certain groups of health service workers.

Although the Labour Party promises to abolish charge and private treatment, this is not the answer, *The Economist* points out. The answer lies in the government's correcting the service's basic defects and malfunctioning.

Physician Sponsors Chinese Student

Dr. Raleigh White of Temple is sponsoring the premedical training of a young Chinese student who enrolled recently at Southern Methodist University in Dallas. John Chiu, the son of Dr. Stanley Chiu, an old friend of Dr. White's, plans to become a medical missionary. He was educated in Shanghai in Communist dominated schools and was brought to this country, through the efforts of Dr. White, the Commission on Missions of the Temple First Methodist Church, and several others.

Employment of Handicapped Emphasized by Governor

Attention was focused on the problems of rehabilitation and the placement of the physically handicapped during the week of October 6-12, which Governor Price Daniel designated as Texas Employ the Physically Handicapped.

At the recent annual meeting of the Texas Committee for Employment of the Physically Handicapped in Austin, Barney Capshaw, a Fort Worth engineer, was named "Handicapped Person of the Year." He lost a limb in a head-on collision between two locomotives. In 1950, he organized the Fort Worth Amputee Club which sponsors softball games, helps other handicapped citizens of Tarrant County get jobs, helps others obtain artificial limbs, and shows the victims how to use the new limbs.

Companies recognized for their enthusiasm in employing physically handicapped persons were the Hydo Corporation in Austin and the Double Seal Ring Company in Fort Worth. Among the guest speakers at the meeting was Dr. Lee D. Cady, Veterans Administration Hospital, Houston.

The Texas chapter of the International Association of Personnel in Employment Security presented awards to the Texas Employment Commissions in Fort Worth, Beaumont, Paris, and Port Arthur.

Armed Forces Needs Physicians

Too few physicians are volunteering for active duty and residency programs to meet service requirements, according to the director of the Selective Service System. If the present trend continues, the system will need to have a special call for physicians.

Local boards will be expected, in anticipation of a possible special call for physicians, to proceed with the physical examination of all physicians who are in Class I-A or Class I-A-O and have not been examined or who are in Class IV-F under the provisions of section 1622.44 (a) of the regulations. Operations Bulletin No. 181, issued August 19, 1957, entitled "Postponement of Armed Forces Physical Examination and Induction of Physicians and Dentists," is being amended to discontinue the postponement of the examination and induction of physicians.

Texas Second in Medicare Claims

A total of $7,197,160.02 was paid for 75,064 Medicare claims in Texas from July, 1957, to June, 1958, reports the Office for Dependents' Medical Care. Texas was second only to California, which received $14,204,845.06.

Out of the Texas claims, $3,936,143.11 was paid to physicians, an amount representing 8.73 per cent of that paid to physicians throughout the United States.

Easter Seal Society Publishes Pamphlets

Three pamphlets, pointing out new and improved techniques in the care and treatment of stroke patients have been published by the National Society for Crippled Children and Adults, the Easter Seal Society.

The pamphlets, "A Stroke Needn't Strike You Out," "Life with a Stroke," and "Preventive Techniques of Rehabilitation for Hemiplegic Patients," are being sold through the society at 11 S. La Salle Street, Chicago 3.

Drive to Aid Muscular Dystrophy

An annual fund drive of the Muscular Dystrophy Association of America will be held in November by local volunteers in order to further research in muscular dystrophy and to assist doctors and clinics with a patient service program for victims of the disease.

The association has nine chapters in the following cities in Texas: Dallas, Amarillo, San Angelo, Fort Worth, Lubbock, Waco, Houston, Corpus Christi, San Antonio, and Austin (the newest organized chapter). They provide equipment, such as wheel chairs, braces, walkers, lifts, and hospital beds, as well as physicians' services where needed. Physical therapy also is available. For literature concerning muscular dystrophy, its treatment, and the patient service program, doctors may check with the chapter nearest them or write the Central Texas Chapter, 2604 Bridle Path, Austin.

Texan in AMA Journal

Hip bursitis is described by Dr. Morton H. Leonard, El Paso orthopedist, in the September 13 issue of the *Journal of the American Medical Association.*

Pain in the lower back and legs may actually be "bursitis of the hip" and not sciatica, said Dr. Leonard. In the trochanteric syndrome, the bursae and tendons near the trochanter major are affected.

Treatment may include roentgen-ray therapy, diathermy, puncture of the affected bursa, and surgical removal of calcium. Dr. Leonard also has found that injections of hydrocortisone acetate into the affected part helps.

Medical Examiner Plan Discussed

The need for a statewide medical examiner plan and Texas' medical examiner law and its application in Bexar and Harris Counties are discussed in a recent issue of *Public Affairs Comment,* a publication of the University of Texas Institute of Public Affairs.

The article, written by Wayland D. Pilcher, research associate for the institute and a member of the Texas Bar, discusses the establishment of medical examiner offices in Bexar and Harris Counties, pointing out the effectiveness of such offices on a statewide basis.

Single copies of *Public Affairs Comments* can be obtained free on request to the Institute of Public Affairs, University of Texas, Austin 12.

Grants Enable Salmonella Research

The National Institutes of Health have awarded research grants to two State of Texas Department of Health veterinarians totaling $8,395 per year for 3 years to study Salmonella infections in dogs and the possibility of dog-to-human transmission.

Carl D. Heather, D.V.M., of the department's Division of Laboratories in Austin will be the principal investigator, assisted by A. B. Rich, D.V.M., director of the department's Division of Veterinary Public Health.

Recent studies have shown a high rate of infection in household pets and the new study will enlarge on earlier findings and attempt to connect pet and human infections.

Industry Adopts Psychiatric Programs

A growing number of business concerns are tackling what many industrial health experts believe is industry's top medical problem—the emotionally disturbed worker, as reported by Jerry E. Bishop in the June 30 issue of the *Wall Street Journal.*

Besides dealing with mental health problems of individuals on the job, the relatively new field of industrial psychiatry also is exploring the concept of "corporate personality," states the article. Many industrial psychiatrists are convinced that companies themselves may often be causing or at least "triggering" emotional disturbances among those employes who have trouble adjusting to life's stresses.

Arguments with fellow workers, a threat to a person's job, a slight by the boss, money troubles, and a variety of other stresses might bring emotional disturbances, according to the article. These disturbances among employees cost industry hundreds of millions of dollars annually in absenteeism, lower productivity, accidents, and other work disruptions, according to the book "Mental Health in Industry" by Drs. Alan A. McLean and Graham C. Taylor. Many companies have arrangements with psychiatrists in private practice to handle their mental health cases and have found this policy hikes their output and cuts down absenteeism.

Phychiatrists claim industry long has ignored the mental health of employees, states Mr. Bishop. A disturbed worker may be told to "take off a few days until you're feeling better." But in recent years, industry has begun "to realize that the emotionally disturbed worker is injured just as badly as the one with a broken leg," says Dr. Leo Wade, medical director of Esso Standard Oil.

A few companies have set up mental health programs to spot employes with emotional disturbances and get them under treatment. Some have arrangements with psychiatrists in private practice to handle their mental health cases. In addition, many companies are training their physicians, key executives, and personal staff to spot and help with employes' emotional problems.

For example, some 40 companies each year send doctors and executives to industrial mental health seminars at the Menninger Foundation, a psychiatric training and research institute at Topeka, Kans. Company psychiatrists, however, seldom undertake any complex, long-range treatment of an emotionally disturbed worker.

VA Team Discovers Fat Produces More Fat

Fat is not stored in the body as an inert padding but tends to produce more fat at a prodigious rate, discovered a Veterans Administration research team in Seattle recently. The team found fat tissue converts blood sugar and other nourishment into fat at a much faster rate than do other tissues.

The doctors incubated various mouse tissues in the laboratory and fed the tissues with compounds such as glucose, acetate, propionate, and methylmalonate. The compounds were tagged with radioactive materials so they could be traced through complex chemical reactions. Mouse fat tissues seemed to take up the raw materials on a "crash" basis, fashioning them into fat with great rapidity. Fat was produced more than 100 times as fast by fat as by tissues from the liver, according to the team.

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REFERENCES: 1. Carlozzi, M.: Ant. Med. & Clin. Therapy 5:146 (Feb.) 1958. 2. Welch, H.; Wright, W. W., and Staffa, A. W.: Ant. Med. & Clin. Therapy 5:52 (Jan.) 1958. 3. Marlow, A. A., and Bartlett, G. R.: Glucosamine and Leukemia. Proc. Soc. Exp. Biol. & Med. 84:41, 1953. 4. Shalowitz, M.: Clin. Rev. 1:25 (April) 1958. 5. Nathan, L. A.: Arch. Pediat. 75:251 (June) 1958. 6. Cornbleet, T.; Chesrow, E., and Barsky, S.: Ant. Med. & Clin. Therapy 5:328 (May) 1958. 7. Stone, M. L.; Sedlis, A., Bamford, J., and Bradley, W.: Ant. Med. & Clin. Therapy 5:322 (May) 1958. 8. Harris, H.: Clin. Rev. 1:15 (July) 1958.

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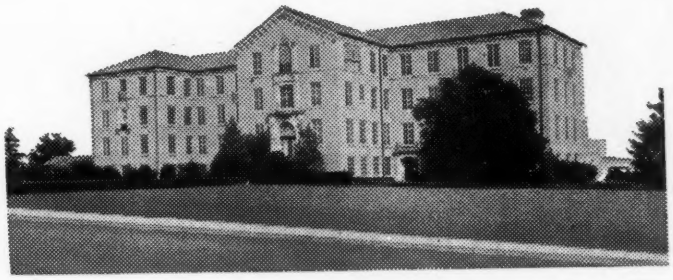
Charles L. Bloss, M.D., Medical Director
Howard M. Burkett, M.D., Associate Psychiatrist
James K. Peden, M.D., Associate Psychiatrist
Ward G. Dixon, M.D., Associate Psychiatrist
Jerry M. Lewis, M.D., Associate Psychiatrist
C. L. Jackson, M.D., Associate Psychiatrist
LeeOwen S. Buford, M.D., Associate Psychiatrist
Albert F. Riedel, Jr., M.D., Resident Psychiatrist
Belvin A. Simmons, M.D., Resident Psychiatrist
E. Clay Griffith, M.D., Resident Psychiatrist

Frances Lumpkin, R.N., B.S., Director of Nurses
Donald Bertoch, M.S., Clinical Psychologist
Charles J. Black, M.A., Clinical Psychologist
Bill M. Turnage, M.S., Director of Social Service
Lois Timmins, Ed.D., Director of Recreational Therapy
Geraldine Skinner, B.S., O.T.R., Director of Occupational Therapy
Ralph M. Barnette, Jr., Business Manager



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E. E. Stewart, D.D.S.
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Owen C. Berg, M.D., F.A.C.S.
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Julian H. Acker, M.D.

MEDICINE
P. K. Smith, M.D., F.A.C.P., Diagnosis & Internal Medicine
L. L. Humphrey, Jr., M.D., Diagnosis & Internal Medicine
W. B. Whiting, M.D., F.A.C.P., Cardiology
R. F. Knox, M.D., Endocrinology
Julian H. Acker, M.D., Diagnosis & Internal Medicine
Blair P. Coleman, M.D., Diagnosis & Internal Medicine
Preston McCall, M.D., Diagnosis & Internal Medicine
OPHTHALMOLOGY
Alton Munro, M.D.
PEDIATRICS
R. L. Nelson, M.D., F.A.A.P.
George W. Slaughter III, M.D., F.A.A.P.
OBSTETRICS AND GYNECOLOGY
W. L. Parker, M.D., F.A.C.S.
Warren T. Kable, M.D.
Frank J. Lee, M.D.
ADMINISTRATIVE OFFICER
Bertha McNeill, Administrator

Articles on Hypnosis

The following is a list of recently published material on hypnosis which is available at the Memorial Library of the Texas Medical Association in Austin:

Articles

Baer, W.: *Hypnosis in Obstetrics,* Minn. Med. 40:235-237 (April) 1957.

Biddle, W. E.: *Imagination as a Factor in Hypnosis,* Am. J. Psychiat. 113:367 (Oct.) 1956.

Browning, C. W., and Crasineck, H. B.: *The Experimental Use of Hypnosis in Suppression Amblyopia; A Preliminary Report,* Am. J. Ophth. 44:468-476 (Oct.) 1957.

Cavanagh, J. R.: *Hypnosis,* Bull. Georgetown Univ. M. Center 9:202-204 (July) 1956.

Cheek, D. B.: *Hypnosis; An Additional Tool in Human Reorientation to Stress,* Northwest Med. 57:177-182 (Feb.) 1958.

Conn, J. H.: *What Every Doctor Should Know About Hypnosis,* Maryland M. J. 6:8-14 (Jan.) 1957.

Editorial: *Therapeutic Hypnotism,* Brit. M. J. 1:1351-1352 (June 8) 1957.

Fry, A.: *The Scope for Hypnosis in General Practice,* Brit. M. J. 1:1323-1328 (June 8) 1957.

Gale, C., and Herman, M.: *Hypnosis and the Psychotic Patient,* Psychiatric Quart. 30:417-424 (July) 1956.

Giffin, M. E.: *Hypnosis in Obstetrics,* Minn. Med. 40:238-240 (April) 1957.

Giorlando, S. W.: *Treatment of Hyperemesis Gravidarum with Hypnotherapy,* Am. J. Obst. & Gynec. 73:444-447 (Feb.) 1957.

Goldman, I. B.: *Therapeutic Value of Music,* Eye, Ear, Nose & Throat Month. 35:663-665 (Oct.) 1956.

Gordon, J. E.: *Leading and Following Psychotherapeutic Techniques with Hypnotically Induced Repression and Hostility,* J. Abnorm. & Social Psychol. 54:405-410 (May) 1957.

Greer, H. S.: *Hypnotic Analgesia in Childbirth,* M. J. Australia 43:819-820 (Dec. 1) 1956.

Kennedy, A.: *The Medical Use of Hypnotism,* Brit. M. J. 1:1317-1319 (June 8) 1957.

Knight, A. M., Jr.: *Hypnosis,* M. Times 85:130-134 (Feb.) 1957.

Kroger, W. S., and DeLee, S. T.: *Hypnoanesthesia for Cesarean Section and Hysterectomy,* J. A. M. A. 163:443-444 (Feb. 9) 1957.

Kroger, W. S.: *Hypnotherapy in Psychosomatic Obstetrics and Gynecology,* J. Arkansas M. Soc. 54:276-278 (Dec.) 1957.

Leonard, A. S., and others: *Treatment of Postgastrectomy Dumping Syndrome by Hypnotic Suggestion: Preliminary Report,* J.A.M.A. 165:1957-1959 (Dec. 14) 1957.

McClaskey, Joanne: *Hypnotism,* Blue Cross-Blue Shield Fax 6:5-7 (May-June) 1958.

Maclurkin, I. D.: *Hypnotism in General Practice,* M. J. Australia 43:108-110 (July 21) 1956.

Marmer, M. J.: *Hypnoanalgesia: The Use of Hypnosis in Conjunction with Chemical Anesthesia,* Anesth. & Analg. 36:27-31 (Nov.-Dec.) 1957.

Marmer, M. J.: *Role of Hypnosis in Anesthesiology,* J.A.M.A. 162:441-443 (Sept. 29) 1956.

Matlin, E.: *Hypnosis,* Am. Pract. & Digest Treat. 8:759-765 (May) 1957.

Meares, A.: *A Working Hypothesis As to the Nature of Hypnosis,* A.M.A. Arch. Neurol. & Psychiat. 77:549-555 (May) 1957.

Morris, G. O.: *Major Trends in the Recent Literature on Hypnosis,* Psychiatry 20:185-196 (May) 1957.

Rosen, H.: *Hypnosis and Self-Hypnosis in Medical Practice,* Maryland M. J. 7:297-299 (June) 1957.

Schneck, J. M.: *Current Advances in Hypnotherapy,* Am. J. Psychotherapy 11:408-421 (April) 1957.

Schneck, J. M.: *A Two Stage Levitation Technique for the Induction of Hypnosis,* Am. J. Psychiat. 113:839 (March) 1957.

Schneck, J. M.: *The Hypnotic State and the Psychology of Time,* Psychoanalyt. Rev. 44:323-326 (July) 1957.

Solovey de Milechin, G.: *Hypnosis in Everyday Life,* Dis. Nerv. System 18:468-473 (Dec.) 1957.

Stewart, H.: *Some Uses of Hypnosis in General Practice,* Brit. M. J. 1:1320-1322 (June 8) 1957.

Books and Periodicals

Am. J. Clin. Hypnosis 1, 1958.

Brenman, Margaret: *Hypnotherapy: A Survey of the Literature,* New York, International Universities Press, 1947.

Cooper, Linn F.: *Time Distortion in Hypnosis: An Experimental and Clinical Investigation,* Baltimore, Williams and Wilkins, 1954.

Dorcas, Roy Melvin: *Hypnosis and Its Therapeutic Applications,* New York, Blakiston, 1956.

Schneck, J. M.: *Hypnosis in Modern Medicine,* Springfield, Ill., Charles C Thomas, 1953.

Van Pelt, Sydney James: *Hypnotic Suggestion, Its Role in Psychoneurotic Disorders; A Thesis,* New York, Philosophical Library, 1956.

Weitzenhoffer, A. M.: *General Techniques of Hypnotism,* New York, Grune and Stratton, 1957.

Wolberg, L. R.: *Medical Hypnosis,* 2 vol., New York, Grune and Stratton, 1948.

Gifts to the Library

Dr. T. J. Archer, Austin, 100 journals.
Dr. James M. Coleman, Austin, 21 journals.
Dr. Lang F. Holland, Austin, 143 journals.
Dr. J. E. Johnson, Austin, 7 reprints, 2 journals.
Dr. Sam N. Key, Jr., Austin, 14 journals.
Dr. Carey Legett, Jr., Austin, 175 journals.
Dr. A. D. Pattillo, Austin, 1 reprint, 25 journals.
Dr. N. L. Schiller, Austin, 51 reprints, 120 journals.
Dr. B. O. White, Austin, 19 journals.
Dr. D. R. Womack, Austin, 11 reprints, 43 journals.
Dr. G. K. Womack, Austin, 12 journals.
Dr. Edward Zidd, Austin, 350 journals.

★ Books

Books Newly Acquired

Ash, J. E., and Spitz, Sophie: *Pathology of Tropical Diseases and Atlas,* Philadelphia, W. B. Saunders, 1945.

Bernard, Claude: *An Introduction to the Study of Experimental Medicine,* New York, Dover Publishing Company, 1957.

Best, Winfield, and Jaffe, Frederick S.: *Simple Methods of Contraception,* New York, Planned Parenthood Federation of America, 1958.

Burdon, Kenneth L.: *Textbook of Microbiology,* ed. 4, New York, Macmillan, 1958.

Ciba Foundation Colloquia on Endocrinology: *Hormone Production in Endocrine Tumors,* Boston, Little, Brown and Co., 1958, vol. 12.

Fiese, Marshall J.: *Coccidioidomycosis,* Springfield, Ill., Charles C Thomas, 1958.

Gardner, Weston D.: *Diagnostic Anatomy,* St. Louis, C. V. Mosby, 1958.

Gumpert, T. E.: *Basic Cardiology,* Bristol, John Wright, 1958.

Hackett, George Stuart: *Ligament and Tendon Relaxation . . . Treated by Prolotherapy,* ed. 3, Springfield, Ill., Charles C Thomas, 1958.

Hardy, James D.: *Fluid Therapy,* Philadelphia, Lea & Febiger, 1954.

Krugman, Saul, and Ward, Robert: *Infectious Diseases of Children,* St. Louis, C. V. Mosby, 1958.

Lee, Roger I.: *A Doctor Speaks His Mind,* Boston, Little, Brown & Co., 1958.

McGregor, Alexander Lee: *Synopsis of Surgical Anatomy,* Baltimore, Williams and Wilkins, 1957.

Obrig, Theo E., and Salvatori, Philip L.: *Contact Lenses,* ed. 3, New York, Orbig Laboratories, 1957.

Pfeffer, Arnold Z.: *Alcoholism,* New York, Grune and Stratton, 1958.

Rudd, Augustin G.: *Bending the Twig,* New York, New York Chapter, Sons of the American Revolution, 1957.

Year Book of Cancer, 1958, Chicago, Year Book Publishing Company, 1958.

Book Notes

Bone Diseases in Medical Practice

I. SNAPPER, M.D., Director of Medicine and Medical Education, Beth-El Hospital, Brooklyn, N. Y. 229 pages. $15. New York, Grune & Stratton, Inc., 1957.

This book contains valuable information covering the field of bone diseases. In addition, there are at the back of the book, 24 pages of x-ray reproductions with descriptions of the bone pathology present. The reproductions are made by a new photo-electronic method which is realistic in appearance, and they are one of the most detailed group of reproductions I have seen.

This book is of value both to the specialist and to the man doing general practice. The contents cover bone diseases, leaving out the bone tumors. The typical bone condition is covered in a thorough manner with a brief description of the general picture of the disease followed by etiology, clinical syndrome, biochemistry, x-ray findings, differential diagnosis, and treatment. It is probably the most recent and up-to-date publication on these diseases including the more recent methods of treating these individual entities. The descriptions of these various diseases make interesting reading. The volume is a worth-while publication for general knowledge and also a fine reference for any of the individual bone conditions covered.

—L. Scott Wallace, M.D., Beaumont.

Dietary Prevention and Treatment of Heart Disease

JOHN W. GOFMAN, Ph.D., M.D., Donner Laboratory, University of California, Berkeley; ALEX V. NICHOLS, Ph.D., Donner Laboratory, University of California, Berkeley; E. VIRGINIA DOBBIN, Senior Dietitian, E. V. Cowell Memorial Hospital, University of California, Berkeley. 256 pages. $3.95. New York, G. P. Putnam's Sons, 1958.

This book is written for the general public but should be of interest to all physicians concerned with the management of coronary heart disease. Despite the all inclusive title, only the so-called low fat diet in the prevention and treatment of coronary heart disease is discussed. It is proposed that such heart disease may be forestalled by changes in the average American citizen's dietary habits provided his serum lipoproteins are abnormally altered as determined by Gofman's ultracentrifuge technique.

Theories proposed by Gofman and his associates indicate that hydrogenated, solid, "animal" fats, such as butter, beef tallow, or even hydrogenated vegetable oil (oleomargarine) may elevate certain serum lipoprotein levels. Abnormally elevated lipoprotein levels have been lowered when such fats are reduced in the diet. Perhaps there is a noxious substance in animal fats. Vegetable oils in their natural unsaturated liquid state contain no noxious substances; however, they are not positively beneficial and are of no value unless animal fats are curtailed.

Carbohydrates are converted to fats, and excess carbohydrate intake may abnormally elevate serum lipoproteins in some individuals. Thus, vegetable oils are used safely to fill the dietary gap and prevent replacement of animal fats with carbohydrates in excess.

The reader is instructed on how to evaluate his own diet in terms of intake of fats of high saturation, fats of low saturation, carbohydrates, and proteins. He is instructed further on how to change his old, presumably faulty, diet to the recommended diet. There are detailed recipes which use vegetable oils in cooking instead of animal fats.

In the preface the authors state that they do not condone or advise faddism. It is the reviewer's earnest hope that theories proposed by Dr. Gofman and his associates are not seized upon by unscrupulous faddists who may exploit them to their own selfish ends.

—Hugh P. Reveley, M.D., San Antonio.

Physical Methods in Physiology

W. T. CATTON, M.Sc. Physiology Department, King's College, Newcastle-upon-Tyne. 375 pages. $10. New York, Philosophical Library, 1957.

Blacklock and Southwell: A Guide To Human Parasitology for Medical Practitioners

Sixth edition; revised by T. H. DAVEY, O.B.E., M.D. (Belf.); D.T.M. (Liver.), Professor of Tropical Hygiene, Liverpool School of Tropical Medicine, University of Liverpool, and formerly Director of the Sir Alfred Jones Laboratory, Freetown, Sierra Leone, West Africa. 222 pages. Baltimore, Williams and Wilkins, 1958.

The Story Behind the Word

HARRY WAIN, M.D. (cum laude), M.S.P.H., Health Commissioner, Mansfield-Richland County, Ohio. 343 pages. $8.30. Springfield, Ill., Charles C Thomas, 1958.

Rudolph Matas History Of the Louisiana State Medical Society

Volume 1, Edited by MARY LOUISE MARSHALL. 252 pages. Volume 2, CONGRESSIONAL DISTRICTS AND INDIVIDUAL PARISHES. Edited by HATHAWAY GIBBENS ALEMAN. 273 pages. Rudolph Matas History of Medicine Trust Fund, New Orleans, Marrero, La., Hope Haven Press, 1957.

Few if any states in the Union have compiled as accurate and meticulous an account of its history. The medical development as presented in these volumes has missed little that is of lasting historical importance. The thoroughness and accuracy reflects the mixture of the original French, Spanish, and German settlers the offspring of which gave stability to the area to be later colored by the rugged individualism brought in by the Anglo-Saxon element. One must pay homage to this scholarly man who had the personality and the driving force to surround himself with people dedicated to the monumental task of preserving a rich heritage of medical achievement for all future members of the medical profession of Louisiana. The colorful description of the ups and downs, successes and failures in organizational efforts presents a factual pattern of medicine through wars and peace and what one might tag the progress of medicine throughout the parishes. The careful depiction of the duties of physician to patient and of the patient to physician, and the duties of the profession to the public and of the obligations of the public to the profession are a stimulant to anyone who might happen to read them.

Our friends in Louisiana are to be congratulated for this outstanding contribution to both themselves, the public, and the rest of the medical profession, for in so doing they undoubtedly will stimulate others to do likewise.

—Joe C. Rude, M.D., Austin.

A Manual of Pharmacology and Its Applications To Therapeutics and Toxicology

TORALD SOLLMAN, M.D., Professor Emeritus of Pharmacology and Materia Medica, School of Medicine, Western Reserve University, Cleveland, Ohio. ed. 8. 1535 pages. $20. Philadelphia, W. B. Saunders Company, 1957.

This is the eighth edition of a textbook written by one of the founders of American pharmacology. The book is prepared presumably for the use of medical students. The aim ". . . is to furnish a guide through the complexities of modern pharmacology—the actions and uses of drugs." The wealth of material in the past 10 years has forced the author to include only references since 1948 in his bibliography.

This is a standard reference work for students, practitioners, and research workers. It is a vast reservoir of information for the purpose of keeping abreast of pharmacology and for finding out what studies have been done on a particular drug or chemical.

New and Nonofficial Drugs

AMERICAN MEDICAL ASSOCIATION, containing descriptions of therapeutic, prophylactic, and diagnostic agents evaluated by the Council on Drugs (formerly, Council on Pharmacy and Chemistry) of the American Medical Association. An annual publication issued under the direction and supervision of the Council. 645 pages. Philadelphia, J. B. Lippincott Company, 1958.

Physical Dynamics of Character Structure; Bodily Form and Movement in Analytic Therapy

ALEXANDER LOWEN, M.D., Executive Director, Institute for Bioenergetic Analysis, New York. 358 pages. New York, Grune & Stratton, Inc., 1958.

★ Texas Medical Association

Fiesta-Scientific Program Planned for Texas Doctors

Four days packed with a top quality scientific program featuring a number of noted out-of-state speakers, San Jacinto Fiesta activities, and the atmosphere of historic San Antonio are on the agenda for physicians attending the 1959 annual session of the Texas Medical Association, the doctors responsible for planning the program report. The session will be held in San Antonio April 18-21.

The bulk of scientific activities, registration, exhibits, general meetings, and meetings of the House of Delegates will be held at the Hilton Hotel, which has been designated as the official annual session headquarters, with some of the scientific activities held at the Gunter and Menger Hotels. The Auxiliary will have its headquarters at the St. Anthony Hotel. Rooms for the official family, including delegates, exhibitors, and guest speakers are being reserved at the Hilton.

Hotel reservations are to be made by individual members directly with the hotels. Hotels and motels which have blocks of rooms reserved for Association members, with their addresses and rates, include the following:

Blue Bonnet Hotel—426 North St. Mary's, $3.50 to $6 single, $5 to $10 double.
Crockett Hotel—301 East Crockett, $3.50 to $4.50 single, $5.50 to $6.50 double.
Gunter Hotel—205 East Houston, $5 up single, $6.50 up double.
Hilton Hotel—309 South St. Mary's, $5 to $10 single, $6.50 to $12 double.
Menger Hotel—204 Alamo Plaza, $5.50 to $8 single, $7.50 to $10 double, $8 to $12 twins.
Robert E. Lee Hotel—311 West Travis, $3.50 to $5 single, $5 and $6 double, $6 to $8 twins.
St. Anthony Hotel—Travis and Navarro, $5 up single, $7 up double.
White Plaza Hotel—203 East Travis, $3.25 up single, $4.75 up double.
Flamingo Hotel—1131 Austin Highway, $6 up.
Rio Lado Drive In Motel—1100 North St. Mary's, $6 to $10.
The Westerner—1116 Austin Highway, $5.50 up.

The daily schedule for the 1959 session is similar to that of the 1958 session. The House of Delegates will meet Saturday and Sunday evenings and Tuesday afternoon, with general meetings scheduled for Monday and Tuesday mornings. Refresher courses and section programs are planned for Monday and Tuesday. Related organization meetings will be held Saturday afternoon and all day Sunday and Monday. The orientation program is planned for Tuesday. One or more special symposiums are planned for Saturday afternoon.

Monday evening plans are to conclude alumni banquets in time for visitors to see the traditional river parade. A single large President's Party is not scheduled in order to give everyone an opportunity to take a greater advantage of Fiesta activities. Plans for Tuesday evening are for the President and his party to visit and be honored at each of half a dozen fraternity entertainments before everyone attends "A Night in Old San Antonio," a carnival at La Villita.

TMA Officials Appointed

Several changes and additions have been made among Texas Medical Association officials during September.

New officials include Dr. Harold E. Griffin of Corpus Christi, appointed as vice-councilor of District 6 September 6, and Dr. David W. Carter, Jr., of Dallas, appointed to serve on the Committee on Liaison with State Bar of Texas September 3. Dr. Frederick C. Lowry of Austin, already a member of the latter committee, has been named chairman. Also appointed were Dr. M. D. Thomas of El Paso as fraternal delegate to the New Mexico Medical Society and Dr. H. O. Padgett of Marshall as a fraternal delegate to the Louisiana State Medical Society.

Dr. J. M. Coleman of Austin will replace Dr. Frederick C. Lowry, also of Austin, as chairman of the Committee to Study Asian Influenza. Dr. Lowry will continue as a member of the committee.

Journal Wins Awards

Two awards went to the *Texas State Journal of Medicine* at the awards luncheon of the International Council of Industrial Editors' 1958 Midcontinent Regional Conference, October 1 in Austin. In the trade or association publications division, the *Journal* placed second in the Marketing and Merchandising Awards—for promoting one's company and its products—and tied for third place in the Clement E. Trout Awards—for the best written article or editorial ("Come Hell or High Water" in the September, 1957, issue).

★ American Medical Association

AMA Civil Defense Conference Set

Workshop sessions and field test reports will be given at the ninth annual County Medical Societies Civil Defense Conference to be held in Chicago November 8-9. More than 175 physicians and others interested in civil defense are expected to attend the two day meeting, which is being planned by the Council on National Defense of the American Medical Association.

Dr. Gunnar Gunderson, AMA President, will speak to the group on "The Profession's Responsibilities in Civil Defense." Officials of the newly created Office of Civil and Defense Mobilization will report on the expanding role of the federal government's defense program and the medical and health aspects of civil defense as they pertain to the new program.

Teen Talk Series to Be Available

A new series of three radio programs featuring interviews with teenagers soon will be available from the Bureau of Health Education of the American Medical Association. These 15 minute "Youth Speaks Up" programs offer comments by youths on boy-girl and parent-child relationships, school activities, and world affairs.

Local medical societies may secure these platters as supplements to the "Health Magazine of the Air" monthly series or as separate programs for airing on local radio stations. Inquiries about the series may be sent to the Texas Medical Association, 1801 N. Lamar Blvd., Austin.

AMA Films Available

Four new nonscientific films for lay audiences have been added to the American Medical Association's film library. They are available for showings by state and local medical societies.

They are (1) "You Are There: The Discovery of Anesthesia," which dramatizes the first time ether was used successfully in a surgical operation; (2) "You Are There: The First Major Test of Penicillin," which discusses the place of scientific development in modern medicine and its influence on both peace and war; (3) "Someone Is Watching," which depicts actual cases from the files of the New York State Health Department's Bureau of Narcotics Control; (4) "Medicine Men," which pinpoints the fight against quackery in the food and nutrition field.

★ County Societies

County Society News Briefs

County medical societies reporting recent meetings include the following:

Dr. James H. Colgin and Dr. Harry W. Slade, both of Waco, spoke on "Medical Treatment of Strokes" and "Surgical Treatment of Strokes," respectively, to the members of the *Hill County Medical Society* at the society's meeting September 9 in Hillsboro.

Members of the *Tom Green-Eight County Medical Society* met jointly with members of the Memorial Hospital staff September 2 at the hospital in San Angelo. A business meeting and a buffet supper were held. Dr. Henry A. Holle, Austin, state commissioner of health, discussed public health problems with the group.

Thirty-six members of the *McLennan County Medical Society* were present at the regular meeting of the society August 12 at the Hillcrest Hospital in Waco. Presenting the scientific program was Dr. James Scruggs of Waco, who spoke on "Glaucoma: The Problems and Possible Solution." A demonstration on tonometry was given.

James A. Abernathy of El Paso spoke to the *Pecos-Jeff Davis-Presidio-Brewster Counties Medical Society* at its September meeting at the Holland House Hotel in Alpine. Mr. Abernathy spoke on rehabilitation services available through the Texas Education Agency.

Dr. Doris Grosskreutz, chief of the Department of Anesthesiology of the Robert B. Green Memorial Hospital, spoke to the *Bexar County Medical Society* in San Antonio October 14 on "What Anesthetic Should I Use Today?" Presenting the program for the special meeting of the society at Randolph Air Force Base October 28 will be Dr. Lawrence E. Lamb, "Effects of 'G' Forces on the Heartbeat"; Dr. Jerrold L. Wheaton, "Sensory Deprivation"; and Dr. Willard R. Hawkins, "Weightlessness."

A panel discussion on "Medical Insurance Problems" will be featured at the October 15 meeting of the *Harris County Society*. Dr. Ghent Graves, Houston, will be moderator and panelists will include R. B. Donovan, Texas Health Insurance Council, Houston, and John Delaney, Dr. Frank J. McGurl, and Grant Thomas, all of Houston Health Insurance Council.

★ District Societies

District 8 to Have Meeting

A luncheon, business meeting, scientific sessions, cocktails, and dinner are planned for the District 8 Medical Society meeting November 14 at the University of Texas Medical Branch in Galveston. The District 8 Auxiliary will join the doctors for several of the functions.

Dr. Howard O. Smith, Marlin, President of the Texas Medical Association, will address the group at the opening luncheon.

★ Woman's Auxiliary

Christmas Cards for Colleges

The American Medical Education Foundation Christmas card, sponsored this year by the Woman's Auxiliary to the Texas Medical Association, is a 6 by 4 inch folder that opens on a color picture of Santa Elena Canyon in Big Bend Park. The reproduction on the current card is of a painting by Mrs. D. J. Sibley of Fort Stockton, a member of the Auxiliary, who painted and donated the picture especially for the purpose.

In view of the few physicians proportionately in each population center, this greeting card is an exclusive offer. It is available only to doctors and their families. The cards sell for $2.50 per box of 25 cards and may be ordered through any county auxiliary. If every auxiliary secures a quota of orders, the American Medical Education Foundation is expected to make $1.25 profit per box.

During the School of Instruction of the Woman's Auxiliary, Mrs. Charles L. Gary of Corsicana displays the Christmas card being sold by the Auxiliary this year which was designed by Mrs. D. J. Sibley of Fort Stockton, an Auxiliary member.

Safety, An Aim of the Auxiliary

Safety is a universal desire; each person wants freedom from harm. Measures for safety of the nation and of the individual are an integral part of the United States Constitution. A citizen of the United States is protected on national, state, and local levels by agencies maintained by the taxpayer. However, if these protective agencies are to function, help and cooperation must come from the person being protected.

Living together in a complex society creates hazards that must be recognized and met. Mrs. Howard Dudgeon, Jr., of Waco, Safety Chairman of the Woman's Auxiliary to the Texas Medical Association, suggests that each person consider himself his brother's keeper. Safety and all its implications appear in the pattern of program planning of the Auxiliary.

This organization, like many others, can extend the services of the Texas Department of Public Safety by formulating specific programs on traffic safety: drawing public attention to driver training courses which are already established in many areas; pointing up the need for being safety conscious when buying a car; stressing the importance of mechanical care of all vehicles in use; waging a campaign against drinking drivers; warning against driving when ill or under medication. Indeed, the Executive Board of the Texas Auxiliary has adopted a resolution favoring greater public awareness of the need for traffic safety, more rigid enforcement of present traffic laws, and more effective traffic legislation.

Local auxiliaries can be in the vanguard of those supporting the traffic control systems of the public schools, particularly the elementary schools.

Recent studies made by insurance companies reveal a need for safeguards for the baby sitter and her employer. This uncontrolled, unlicensed mode of earning money has pointed up many risks for both parties concerned.

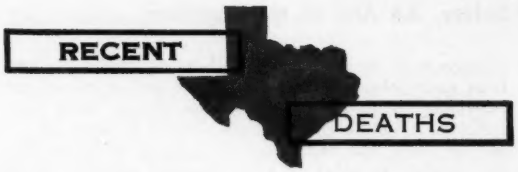
GEMS (Good Emergency Mother Substitutes) is one solution to the problem of trained baby sitters. Several county auxiliary groups have sponsored the course or included it in the Future Nurse Club program. This provides a community with young people alert to safety rules and at the same time provides a means of financing students' attendance at the annual convention of the Texas Association of Future Nurses.

Electrical appliances and all work saving gadgets in the home are potential causes of injury. Top men of industry focus much attention on the safeguards of their workmen. Accidents mean loss of life and loss of man hours of work. This is true in the home as well as in industry.

Members of the medical auxiliary are well aware of the need for group and individual emphasis on planned safety.

—MRS. J. M. COLEMAN, Austin.

Officers of the Woman's Auxiliary to the Texas Medical Association for 1958-1959: President, Mrs. John D. Gleckler, Denison; President-Elect, Mrs. Haskell D. Hatfield, El Paso; First Vice-President, Mrs. William D. Nicholson, Freeport; Second Vice-President, Mrs. G. G. Passmore, San Antonio; Third Vice-President, Mrs. Ralph B. Payne, Amarillo; Fourth Vice-President, Mrs. G. V. Brindley, Jr., Temple; Fifth Vice-President, Mrs. George M. Hilliard, Jacksonville; Treasurer, Mrs. Andrew J. Magliolo, Dickinson; Recording Secretary, Mrs. Thomas J. Vanzant, Houston; Corresponding Secretary, Mrs. Rene G. Gerard, Denison; Publicity Secretary, Mrs. James M. Coleman, Austin; Parliamentarian, Mrs. Truman C. Terrell, Fort Worth; Executive Secretary, Miss Hazel Casler, Austin.



DR. W. R. NAIL

Dr. William Rodger Nail of Waco died June 4, 1958, from carcinoma of the pancreas.

The son of Abraham Hamilton and Matilda (Roberson) Nail, he was born at Pikeville, Tenn., in 1861. Dr. Nail attended Saquatchie College in Tennessee and Add-Ran College at Thorp Spring. He taught school for several years and later attended and was graduated from Tulane University School of Medicine at New Orleans in 1890, and at the time of his death was the oldest living graduate from this medical school. He practiced at Crawford until 1925, when he moved to Waco and opened offices there. He closed his office in 1947 but still practiced medicine at his home for several years after that.

DR. W. R. NAIL

Dr. Nail held membership in the McLennan County Medical Society, the Texas Medical Association (he was elected to honorary membership in 1950), and the American Medical Association. He was also a Mason for more than 50 years and a member of the Karem Shrine and St. John's Methodist Church.

The former Miss Letha Brown of Crawford and Dr. Nail were married in 1891. She died in August, 1951.

Survivors include four sons, Dr. James B. Nail of Wichita Falls, W. R. Nail, Jr., D.D.S., of Dallas, R. S. Nail, D.D.S., of Waco, and Ben Nail of Crawford; 11 grandchildren, three of whom are physicians; and 19 great-grandchildren.

An obituary ordinarily will not be published more than four months after date of death. Cooperation in reporting deaths of physicians and in furnishing appropriate biographical material promptly is solicited.

DR. G. R. MANSKE

Dr. Gerhard Rudolph Manske, Texas City, died June 4, 1958, of a heart attack.

Born March 30, 1906, in Crawford, Dr. Manske was the son of Paul K. and Anna (Wiede) Manske. He attended the schools of Crawford and McGregor, received his academic degree from the University of Texas, Austin, and was graduated in medicine at the University of Texas Medical Branch, Galveston, in 1932. He served an internship at Robert B. Green Hospital, San Antonio, and a residency at Wichita Falls Clinic Hospital prior to establishing his practice in Texas City in 1936. He and Dr. George Beeler were associated there in the Beeler-Manske Clinic, where Dr. Manske specialized in surgery, having done postgraduate work at the University of Pennsylvania, Philadelphia, and became a fellow of the American College of Surgeons in 1942. He was a surgeon for the Southern Pacific lines.

DR. G. R. MANSKE

Dr. Manske served 22 years in the military reserves, first in the Army and more recently in the Air Force, in which he was a colonel. During World War II he was on active duty with the Army Medical Corps, serving as the first commanding officer of the 320th General Hospital. He had been awarded the American campaign medal, World War II victory medal, and a unit citation.

Joining the Texas Medical Association first through the Wichita County Medical Society, Dr. Manske had been affiliated with the Galveston County Medical Society since 1936, serving as its vice-president in 1952. He was a member of the American Medical Association, Southern Medical Association, American Association of Railway Surgeons, Texas Traumatic Surgical Society, and Association of Military Surgeons of the United States and was a founder

member of the Southwestern Surgical Congress. He was on the staffs of Galveston County Memorial Hospital and Danforth Hospital. An elder in the Lutheran Church, he had been president of the council of Memorial Lutheran Church and of its Brotherhood and also had been chairman of the board of parish education. His interest in his church was evidenced when he listed as his hobby "foreign missionaries." He was a charter member and early president of the Junior Chamber of Commerce, of which he later became an honorary member. He received the distinguished service award of the United States Junior Chamber of Commerce in 1939. He belonged to the Kiwanis Club, American Legion, Propeller Club, and the Knife and Fork Club. He was a director of the Mainland Savings and Loan Company. Dr. Manske was listed in "Who's Who in the South and Southwest" and was remembered by his fellow townsmen for his efforts during the Texas City disaster in 1947.

Miss Hallie Andrews of Wichita Falls and Dr. Manske were married June 25, 1938, in Austin. Mrs. Manske and two brothers, O. A. Manske, Brownsville, and Walter Manske, McGregor, survive.

DR. WALTER PURVIANCE

Dr. Walter Purviance, one of the founders of the first hospital in Pampa and the third mayor of the town, died July 24, 1958, of a heart attack.

Born September 27, 1879, at Pleasant Plains, Ill., Dr. Purviance was the son of W. G. and Emily Francis (Eaton) Purviance. He received his early education at Pleasant Plains, later attending Keokuk Medical College at Keokuk, Iowa. He was graduated from the Keokuk school in 1902 and served his internship at St. Joseph Hospital at Keokuk. He practiced in Pampa until his retirement 3 years ago. In 1952 Dr. Purviance was honored by Pampa physicians at a dinner recognizing his fiftieth anniversary of the practice of medicine. His military experience included being a first lieutenant and then a captain in the United States Army from 1917 until 1919.

A member of the Gray-Hansford-Hemphill-Lipscomb-Roberts-Ochiltree-Hutchinson-Carson Counties Medical Society, he was an honorary member of the Texas Medical Association and a member of the American Medical Association. He was president of his county medical society several terms, serving also as secretary for the society in 1946 and 1947. He belonged to the Methodist Episcopal Church, the Rotary Club, and was a Mason for 50 years. He enjoyed big game hunting.

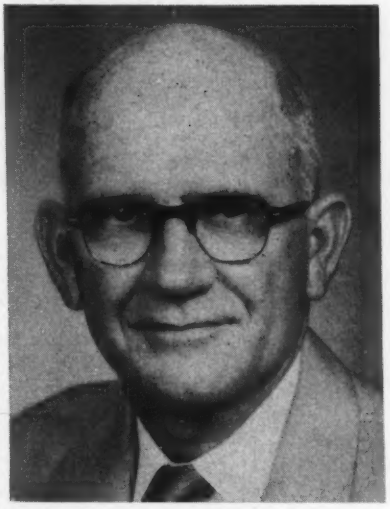
Dr. Purviance married the former Miss Grace Murphy at St. Louis on March 16, 1907. She survives as do a daughter, Mrs. Frank Akright of Oklahoma City; a sister, Mrs. Alice Atherton of Pleasant Plains, Ill.; and two grandchildren, Judith Ann and John Franklin Akright, both of Oklahoma City.

DR. WALTER PURVIANCE

DR. B. J. FETT

Dr. Bennie John Fett, Port Arthur, died of leukemia on July 31, 1958.

Born November 21, 1907, in Port Arthur, Dr. Fett was the son of Mr. and Mrs. John Fett. He attended public schools in Port Arthur and Lamar Technological College in Beaumont and was a graduate of the University of Texas, Austin. He received his doctor of medicine degree from the University of Tennessee, Memphis, in 1932, and did postgraduate work at Bellevue Hospital, New York.



DR. B. J. FETT

He interned at St. Mary's Hospital, South Bend, Ind., and was a resident at the Charity Hospital, New Orleans. He had practiced in Port Arthur since 1936, specializing in urology and dermatology.

Dr. Fett was a member of Jefferson County Medical Society, Texas Medical Association, American Medical Association, and Southern Dermatological Association. He was past president of the St. Mary's Hospital staff in Port Arthur.

Survivors include his wife, the former Miss Edna Jean Matthews, whom he married December 23, 1938, in Port Arthur; a son, B. J. Fett, Jr.; a brother, Phillip Fett; and a sister, Mrs. Carrie Becker, all of Port Arthur.

DR. ADOLPH M. DREISS

Dr. Adolph Martin Dreiss of San Antonio died July 24, 1958, from a cerebral hemorrhage after a year's illness.

Son of Hermann and Lula (Campbell) Dreiss, Dr. Dreiss was born July 21, 1895, in San Antonio. He received his preliminary education in San Antonio and was graduated from St. Louis College (now St. Mary's University) there and in 1919 from the University of Texas Medical Branch in Galveston, where he was a private unassigned in the United States Army from November, 1917, to December, 1918. He interned at St. Vincent de Paul Hospital, Norfolk, Va.

DR. ADOLPH M. DREISS

Dr. Dreiss practiced in San Antonio for 38 years, starting out in his father's drug store. He was a member of Bexar County Medical Society, Texas Medical Association, and American Medical Association.

Dr. Dreiss and Miss Jessie Gomez were married April 18, 1947, in San Antonio. She survives, as does a son, Adolph David Dreiss of San Antonio. His father died August 29.

DR. WILLIAM E. WOOD

Dr. William E. Wood of Elgin died on August 1, 1958, of uremia.

The son of Albert and Martha Wood, Dr. Wood was born August 8, 1879, in Elgin. He was graduated from the University of Texas, Austin, attended the medical department of the University of Georgia, Macon, and was graduated from University College of Medicine at Richmond, Va., in 1902. He served his residency in Elgin. He began practice in Paige, where he stayed for a year before moving to Elgin in 1901.

He held membership in the Bastrop County Medical Society, (which he had served as president), Texas Medical Association, and American Medical Association. In 1955 Dr. Wood was elected to inactive membership in the Texas society. He also belonged to the Elgin Masonic Lodge, Ben Har Shrine, the Eastern Star, and Elgin Chamber of Commerce. He was awarded the Merit of Honor by the United States Army for home service during World War II.

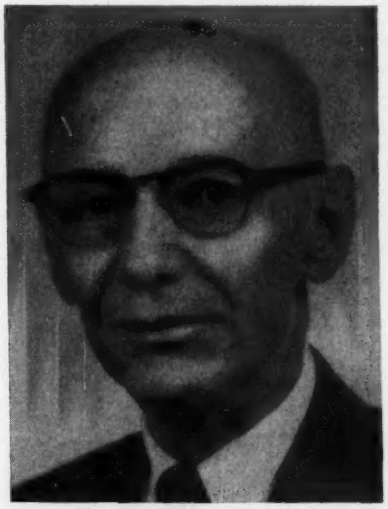
Dr. Wood and Miss Lucy Owens were married December 2, 1903, in Elgin. She died February 7, 1956. Dr. Wood had two sons who also preceded him in death. Survivors include three brothers, Bremond Wood, Elgin; Voyle Wood, Houston; and Vernell Wood, San Antonio, and two grandchildren, Mrs. Don Bruce, Taylor, and William E. Wood, Elgin.

DR. REX R. ROSS

Dr. Rex Roy Ross of San Antonio died August 12, 1958, of cerebral thrombosis.

Born in Cobbleville, Miss., in 1888, he received his early education at Del Rio, later attending and being graduated from Tulane University School of Medicine at New Orleans. He interned at Charity Hospital at New Orleans and in 1912 moved to San Antonio, where he specialized in urology.

During his tenure of practice he was chief of the urological service at the Robert B. Green Hospital, Santa Rosa Hospital, and Woodmen of the World Hospital. He held membership on the staffs of the Nix Hospital, Baptist Hospital, and Santa Rosa Hospital. Dr. Ross served in the United States Army Medical Corps during World War I.



DR. REX R. ROSS

A past president and member of the Bexar County Medical Society, he also belonged to the Texas Medical Association, the American Medical Association, the American Urological Society, the Texas Urological Society, and the San Antonio Urological Society. He was a fellow of the American College of Surgeons and a diplomate of the American Board of Urology. He belonged to Laurel Heights Methodist Church.

Members of the family who survive include his wife, the former Miss Effie Loadholt, whom he married May 4, 1913; three brothers, Dr. Joseph Ross of Mexico City, Mitchell Ross of San Antonio, and Ralph Ross of Del Rio; and two sisters, Mrs. R. L. Koontz of Douglas, Ariz., and Miss Zulieme Ross of San Antonio.